GATES LEARJET CORPORATION

maintenance manual

CHAPTER

5

TIME LIMITS / MAINTENANCE CHECKS

Record of Temporary Revisions

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TIME LIMITS AND MAINTENANCE CHECKS

1. GENERAL

A. This chapter is a guide to familiarize personnel with Learjet inspection items. All directions referred to are as viewed from the pilot's seat and the term "general condition" means "inspect for such items as finish, dents, cracks, and other distortions not normal to the aircraft".

B. This chapter is divided into sections as described in the following paragraphs.

C. The Daily, Pre-Test Flight and Post-Test Flight Inspections have been deleted. These items are now in the AFM and 200/400 hour inspections.

D. 5-10-02, INSPECTION PROGRAM - This section consists of individual inspections which are to be performed at 200 and 400 hour intervals.

E. 5-10-03, SPECIAL INSPECTIONS - This section contains 6-month, 12-months, 24-months, 600-hour, 1200-hour, 2400-hour, and 12000-hour inspections that are applicable to all aircraft. A 3000-landing and 6000-landing/12-year inspection is included for those aircraft approved for flight operations at 51000 feet. (Aircraft 25-230 and subsequent). For those aircraft not approved for 51,000 foot operation (aircraft 25-061, 25-070 thru 25-229), a 7200-hour/12-year and a 6000-landing inspection is included.

F. 5-10-04, REPLACEMENT AND OVERHAUL SCHEDULE - This section consists of a list of items which should either be overhauled or replaced at indicated intervals. Replacement items which are in compliance with FAA Approved Report 25-S47 are listed in Chapter 4.

G. 5-50-00, UNSCHEDULED MAINTENANCE CHECKS - This section consists of maintenance checks covering abnormal aircraft operation including hard or overweight landing, severe turbulence and/or maneuvers, engine change, rejected takeoff and sod runway landings.

INSPECTION PROGRAM

1. GENERAL

A. The inspection program defined herein constitutes what the Manufacturer considers necessary to assure the continued airworthiness of Learjet aircraft. As such, this program represents the Manufacturer's Recommended Program in the context of the applicable paragraphs of the operational rules of Part 91 and 135.

B. This recommended inspection program consists of individual inspections to be performed at 200 hour, 400 hours, 6 months, 12-months, 24-months, 600 hours, 1200 hours, 2400 hours, and 12,000 hours for all aircraft. A 3000-landing and 6000-landing/12 year inspection is included for those aircraft approved for flight operation at 51,000 feet (Aircraft 25-230 and on). For those aircraft not approved for 51,000 foot operation (Aircraft 25-061, 25-070 thru 25-229), a 7200 hour/12 year and a 6000-landing inspection is included.

C. The 200-hour inspection must be performed at least once during each six-month calendar period. This applies to aircraft which fly less than 200 hours each six-month period.

D. The 400-hour inspection must be performed at least once each 12-month calendar period. This applies to aircraft which fly less than 400 hours each 12 month period.

E. The factory recommends the following inspections to be performed on new aircraft during the first 400 flight hours.
 (1) At 200 hours, perform the 400-hour inspection.
 (2) At 400 hours, perform the 400-hour inspection.

F. For other aircraft, the inspections defined herein are to be accomplished at 200 flight hour/6-month and 400 flight hour/12 month intervals from the last inspection. Conversion from the previous 150/300 hour program to the revised 200/400 hour program is to be accomplished at the operator's convenience. The operator should consider such factors as coordination with higher time inspections and FAA coordination for FAR Part 121 and 135 operations.

G. Each inspection defined in this section stands on its own and does not specify any other inspection interval. At each inspection, a review must be made for any other inspection which may be due or will be due in the very near future.

H. The time in calendar months and hours for each aircraft begins with the original Certification date (Airworthiness Certification Issue Date) recorded in the original Log Book for that aircraft.

I. Aircraft owners should adhere as closely as possible (not to exceed +20 flight hours for hourly inspections or + 2 weeks for calendar inspections) to all recommended inspection intervals. Inspection intervals are measured from the last inspection or return-to-service date.

J. Unscheduled Maintenance Checks, Scheduled Servicing, Replacement Items, Overhaul Items and other inspections which correspond to the inspection intervals in this section, are to be accomplished concurrently.

K. Battery entries herein are for reference only. Refer to the battery manufacturer's manuals for servicing.

MODEL LEARJET	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	**NOTE:** The allowable tolerance for this inspection is +20 flight hours for hourly inspections or +2 weeks for calendar inspections.
				A. ELECTRICAL FUNCTIONAL CHECKS
X	X			1. Landing and taxi lights.
X	X			2. Anti-collision beacons and navigation lights.
X	X			3. Pitot heaters.
X	X			4. Static port heaters.
X	X			5. Cabin and cockpit lights.
X	X			6. Instrument, radio panel, and glareshield lights.
X	X			7. Visual and aural warning systems.
X	X			8. Ice detection lights for operation. (Refer to Chapter 30.)
	X			9. Check resistance of nacelle anti-icing heating elements. (Refer to Chapter 30.)
X	X			10. Perform functional test of nose wheel steering system. (Refer to Chapter 32.)
X	X			11. Flaps, spoilers, horizontal stabilizer and trim tabs for proper operation and accurate indication.
X	X			12. Operation of fuel and hydraulic supply shutoff valves and fuel crossflow valve.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				A. **ELECTRICAL FUNCTIONAL CHECKS** (CONT'D)
X	X			13. Perform inspection of primary emergency power supply system as follows: (a) Inspect primary emergency power supply battery (Model PS-823 Nickel Cadmium). (Refer to Chapter 24.) (b) Perform primary emergency power supply battery (Model PS-823 Nickel Cadmium) discharge/recharge. (Refer to Chapter 12.) **NOTE:** The emergency battery is discharge and recharge cycled every three months or 200 hours, whichever occurs first. (c) Inspect primary emergency power supply battery (Model PS-835 Lead Acid). (Refer to Chapter 24.) (d) Perform primary emergency power supply battery (Model PS-835 Lead Acid) operational check. (Refer to Chapter 24.)
X	X			14. Remove nickel cadmium or lead-acid batteries from aircraft. Check or perform the following: (a) General condition of batteries, battery racks, and battery vent system. (b) Complete discharge-recharge conditioning cycle (nickel-cadmium batteries only). (Refer to Chapter 12.) (c) Liquid level check (lead-acid batteries only). (Refer to Chapter 12.) (d) Functional check of battery temperature system thermistors. (Nickel cadmium batteries only.) (Refer to Chapter 24.) (e) Functional check of battery 140 and 160°F warning lights temperature switches (nickel cadmium batteries only). (Refer to Chapter 24.) (f) Aircraft equipped with battery sump jar installation. (Refer to Chapter 12 for servicing procedures.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				A. **ELECTRICAL FUNCTIONAL CHECKS** (CONT'D)
	X			15. Alcohol anti-ice pump for proper operation. (Refer to Chapter 30.) (Effective Aircraft 25-061 and 25-070 thru 25-226.)
	X			16. Perform functional check of DC power distribution system, battery switching circuits, and battery temperature systems. (Refer to Chapter 24.)
X	X			17. Perform anti-skid functional check, Parts III and IV. (Refer to Chapter 32.)
	X			18. Perform maintenance inspection of all circuit breakers, without power application, by pulling and resetting a minimum of three times. (Refer to Chapter 24.)
X	X			19. Perform stall warning functional test. (Refer to Chapter 27.)
X	X			20. Perform altitude pressure switch functional check. (Refer to Chapter 27.) (Effective 25-206 and Subsequent and earlier aircraft equipped with Reduced Approach Speed System.)
X	X			21. Perform functional test of the pressurization aneroid switches. (Refer to Chapter 21.) (Effective Aircraft 25-227 and Subsequent.)
	X			22. Perform functional test of the Cabin Safety valve. (Refer to Chapter 21.)
	X			23. Perform discharge-recharge reconditioning cycle of GNS-500A standby battery. (Refer to Chapter 12.) **NOTE:** Interval to be 400 hours or 4 months, whichever occurs first.
X	X			24. Perform Accelerometer Operational Check. (Refer to Chapter 27.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				A. **ELECTRICAL FUNCTIONAL CHECKS** (CONT'D)
	X			25. Perform functional check of Control Column Shaker. (Refer to Chapter 27.) (Aircraft 25-337, 25-342 and Subsequent and prior Aircraft modified for Horizontal Stabilizer Trim and Autopilot Improvement per AMK81-7 [Model 25D/F] or AMK81-9 [Model 25B/C].)
X	X			26. Perform Operational Check of the Automatic Flight Control/Stability System (AFC/SS). (Refer to Chapter 22.) (Aircraft 25-337, 25-342 and Subsequent and prior Aircraft modified for Horizontal Stabilizer Trim and Autopilot Improvement per AMK81-7 [Model 25D/F] or AMK81-9 [Model 25B/C].)
X	X			27. Perform Trim Systems Operational Check. (Refer to Chapter 27.) (Aircraft 25-337, 25-342 and Subsequent and prior Aircraft modified for Horizontal Stabilizer Trim and Autopilot Improvement per AMK81-7 [Model 25D/F] or AMK81-9 [Model 25B/C].)
	X			28. Perform T.O. Trim Warning Light Operational Check. (Refer to Chapter 27.) (Aircraft 25-337, 25-342 and Subsequent and prior Aircraft modified for Horizontal Stabilizer Trim and Autopilot Improvement per AMK81-7 [Model 25D/F] or AMK81-9 [Model 25B/C].)
	X			29. Inspect the Number 4 gauge electrical cables. (Refer to Chapter 24.)
				B. **WING FROM FILLET OUTBOARD, INCLUDING TIP TANKS (TYPICAL BOTH SIDES)**
	X			1. Wing fillet, tip tank strake (if installed), and tip tank exterior for condition, loose rivets, and fuel leaks.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				B. **WING FROM FILLET OUTBOARD, INCLUDING TIP TANKS (TYPICAL BOTH SIDES)** (CONT'D)
	X			2. Inspect the tip tank inner surface for loose or separated sealant. Inspect the inner structure, particularly the bulkhead/skin interfaces for bacterial growth or corrosion. Inspect conduit in the filler area for nicks, gouges, flat spots, and holes. If corrosion is found in tip tank, defuel wing tanks (Chapter 12) and remove three access covers between W.S. 53.15 and 92.52. Using an explosion-proof light, check the entire area for bacterial growth and corrosion. Flush fuel tanks and repair corrosion.
	X			3. Vortex generators (when installed) or stall fences, stall strips, and boundary layer energizers for general condition and/or missing generators. (Refer to Chapter 57.)
X	X			4. Aileron and aileron tabs and drive mechanism for security, operation, and general condition.
	X			5. All cables, pulleys, sectors, and pulley guards for proper operation and general condition. Particular attention should be given those areas of the cables that pass over pulleys, sectors, or through fairleads. (Refer to Chapter 27.)
	X			6. Spoiler and flap actuators for security of mounting, proper clearance, and general condition.
	X			7. Inspect spoiler center hinge bracket (attached to wing spar 8) for cracks emanating from the bolt hole and/or bracket bend relief. Inspect bolt hole for elongation or distortion. Clean and dye penetrant inspect as required for definitive inspection results. If cracks are found or bolt hole is elongated more than 0.05 inch, incorporate AMK 75-3 (Replacement of Spoiler Center Hinge Bracket) effective aircraft 25-061, 25-070 thru 25-194.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				C. CENTER SECTION (FILLET TO FILLET)
	X			1. Wing-to-fuselage attach points for security (that portion visible through wheel wells).
	X			2. Keel beam for security and general condition (that portion visible through wheel wells).
	X			3. Plumbing for proper routing, condition, and leaks.
X	X			4. Electrical wiring for proper routing, clearance, and general condition.
X	X			5. Visually inspect the accessible portions of the flight controls for proper operation. Clearance and general condition.
X	X			6. Entire area for fuel or hydraulic leaks, line clearances, and condition.
	X			7. Brake lines for proper routing and leaks; actuator attach points for security and strut hinge points for general condition.
	X			8. Landing gear up and down electrical wiring for proper routing and general condition.
X				9. Remove and clean each anti-skid valve filter. (Refer to Chapter 32.) (First 200-hour inspection, each 600-hour inspection thereafter.)
				D. FLIGHT CONTROLS
	X			1. Check for full travel and freedom of movement of all flight controls and proper engagement of stops.
	X			2. Lubricate. (Refer to Chapter 12.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				E. TAILCONE AND PYLON SECTIONS
X	X			1. Exterior for condition, loose rivets, and cleanliness.
X	X			2. Fairings and fillets for security and condition.
	X			3. Check pylon firewalls for cracks, firewall sealant, security of hydraulic and fuel connections, electrical and mechanical feed-throughs, condition of bleed air flange gaskets, and condition of fireproofing paint. (Refer to Chapter 20 for paint application.)
X	X			4. Electrical wiring for proper routing and electrical components for security and general condition.
X	X			5. Clean and pressure check low pressure fuel filters. On aircraft equipped with paper filters, remove and replace filters.
X	X			6. Fuel lines for leaks, general condition, and security; fuel drains for operation.
	X			7. Replace pressure and return hydraulic filter elements.
X	X			8. Hydraulic lines for leaks, proper routing, and security.
	X			9. Check hydraulic aspirator capillary line filter element for contamination; replace as necessary. Drain capillary line. (Effective Aircraft 25-061, 25-070 through 25-179.)
X	X			10. Bleed air ducting (including clamps and valves) for security of mounting, duct insulation, and contamination.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				E. **TAILCONE AND PYLON SECTIONS** (CONT'D)
	X			11. Air conditioning installation for proper belt tension, security of mounting, and general condition. (Refer to Chapter 21.)
	X			12. If oil leaks are visible and/or refrigerant dumped, check compressor oil level (some leakage is allowable around shaft). (Refer to Chapter 12.)
X	X			13. Check hydraulic accumulator precharge (850 psi). (Refer to Chapter 12.)
	X			14. Ram air ducting and heat exchanger for security and general condition.
	X			15. Throttle cables for condition, proper routing, and security of clamps.
X	X			16. Elevator and rudder cables, pulleys, pulley brackets, and guards for operation, condition, and security of mounting.
X	X			17. Elevator and rudder servo cables and clamps for general condition of mounting.
X	X			18. Fire extinguishing system bottle gages for normal operating pressure and plumbing for condition and security. (Refer to Chapter 26.)
	X			19. Perform functional check of fuel vacuum relief valves. (Refer to Chapter 28.)
	X			20. Remove, inspect, and clean as required, vacuum regulator (jet pump) filters. (Aircraft 25-061, 25-070 thru 25-196, 25-198 thru 25-203 not modified per SSK937, "Installation of Cabin Pressurization Regulator.") (Refer to Chapter 37.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				E. TAILCONE AND PYLON SECTIONS (CONT'D)
	X			21. Remove, inspect, and clean as required, hydraulic reservoir pressure regulator filter. (Refer to Chapter 29.) (Effective 25-181 and Subsequent.)
	X			22. Lubricate drag chute installation in accordance with Chapter 12.
	X			23. Perform functional check of drag chute installation. (Refer to Chapter 25.)
	X			24. Inspect lead acid or nickel cadmium battery installation as follows: (a) Inspect battery cases for condition and that lids are properly secured. (b) Inspect structure under batteries for traces of electrolyte or corrosion. (Clean and/or repair as required.) (c) Inspect battery vent tubes for kinks, obstructions, and security of attachment. (d) Inspect vent fittings and inlet and outlet fittings for obstructions, corrosion, and security of attachment. (Clean and/or secure as required.) (e) Battery sump jar (if installed).
X	X			25. Aircraft equipped with thrust reverser, check thrust reverser accumulator precharge in accordance with Dee Howard Thrust Reverser Maintenance Manual.
				F. EMPENNAGE
X	X			1. Fillets, fairings, and skins for condition, cleanliness and security of attachment.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				F. EMPENNAGE (CONT'D)
	X			2. Empennage-to-tailcone attach points for security of attachment.
	X			3. Horizontal stabilizer, rudder, rudder tab, and elevator hinges for security of attachment and general condition. When reinstalling bullet fairing, check to assure that elevator-bullet fairing clearance is 0.31 (±.12) inch.
	X			4. Horizontal stabilizer rear spar caps for corrosion and general condition (elevator removal not required).
X	X			5. ADF sense and HF antennas for corrosion and proper tension.
	X			6. Elevator and rudder controls for proper operation, security of attachment, and general condition.
	X			7. Inspect horizontal stabilizer actuator upper and lower attach fittings (including hinge pin), support structure, and attach bolt retaining clips (if installed) for cracks, fastener condition, security, wear, and general condition.
	X			8. Vertical stabilizer for cracks, fastener condition, and security at primary attachments.
	X			9. Remove access panels and inspect upper and lower flanges of horizontal stabilizer ribs at right and left butt line 19.4 for cracks.
	X			10. Oxygen bottle for security of mounting and plumbing for proper routing and security.
	X			11. Check resistance of horizontal stabilizer anti-ice heating elements. (Refer to Chapter 30.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				G. **COCKPIT (INTERIOR AND EXTERIOR)**
	x			1. Equipment installations between frame 5 and instrument panel for security of mounting, proper routing, and clearances of wiring and plumbing.
	X			2. Remove control wheel sector cover and turnbuckle coverplate from control column. Move control wheel to both extreme right and left while inspecting for frayed or damaged cables. (Refer to Chapter 27 for Cable Damage Limitations.)
X	X			3. Control columns (including wheels) for condition, proper operation, and clearances.
	X			4. Rudder pedals, pedal pushrods, and sectors for security, proper operation, and clearances.
	X			5. Center pedestal for condition, throttles, and flap control for operation.
	X			6. Control cables forward of frame 9, including pulleys, guards and safeties, for proper operation.
	X			7. Instrument panel for security, proper instrument markings, required placards, and general condition.
X	X			8. Interior surface of windshield for cleanliness, security, and general condition.
	X			9. Glareshield headliner and trim strips for security and general condition.
X	X			10. Oxygen pressure gage for oxygen pressure (1550 to 1850 psi). (Refer to Chapter 35.)
X	X			11. Emergency air pressure gage for air pressure (1800 to 3000 psi). (Refer to Chapter 12.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				G. **COCKPIT (INTERIOR AND EXTERIOR)** (CONT'D)
	X			12. Power brake valves for security, operation, and leaks.
X	X			13. Exterior surface of windshield for evidence of crazing between windshield outer retainer and windshield, cleanliness, security, and general condition.
	X			14. With batteries disconnected, check switch and circuit breaker panels for general condition.
X	X			15. Crew seats for proper operation, security of mounting, and general condition.
X	X			16. Seat belts for proper operation, security of mounting, and general condition.
X	X			17. Crew oxygen masks for general condition and proper fit including donning gear (halo, elastic straps, etc.).
X	X			18. Remove and clean pressurization module filter. (Aircraft not equipped with throw-away element.) (Refer to Chapter 21.)
				H. **CABIN**
	X			1. Arm guides of upper cabin door clean and visually check for cracks.
	X			2. Cabin door hook for proper torque; door seals for adhesion, cuts, and abrasion; latch rigging, lower door at hinge for cracks in frame; and door jamb extrusion and latch receptacles for general condition and security.
	X			3. Latch arm of cabin lower door clean and visually check for cracks.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				H. **CABIN** (CONT'D)
	X			4. Check oxygen masks for dropout, operation and oxygen flow. Assure masks are stowed spirally to avoid kinking of lines. (Refer to Chapter 35.)
X	X			5. Cabin fire extinguisher bottle. Inspect, check weight and operating pressure per maintenance instructions on fire extinguisher bottle.
	X			6. Take up carpet and inspect flanges of frames 13 through 14 LH and frames 10 through 14 RH for general condition, deformation, and cracks in area above floorboard and inboard of seat rail support. **NOTE:** Those flanges covered by cabinets or toilet need not be inspected.
	X			7. Cabin windows for cracks, cabin seat stops, stowage cabinets, and seat belts for security, cleanliness, and operation.
	X			8. Remove and clean cabin safety valve filter element. (Refer to Chapter 21.) Aircraft not equipped with throw-away element.
	X			9. Cabin altitude limiter for security of mounting; limiter inlet screen for foreign matter, clean if required; and inlet screen for damage, replace if necessary. (Refer to Chapter 21.)
	X			10. Inspect life preservers. (Refer to Chapter 25.)

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				I. **LANDING GEAR**
X	X			1. Lubricate. (Refer to Chapter 12.)
See	Note			2. Check, clean, and repack wheel bearings. (Refer to Chapter 12.) **NOTE:** Accomplish this procedure at each tire change.
X	X			3. Nose and main tires for wear, cuts, abrasions, flat spots, and proper inflation. Check chine condition on chined tire. (Refer to Chapter 12.)
See	Note			4. Main gear wheels for cracks and scratches. Perform Eddy current inspection of wheels in bead seat radius. (Refer to Chapter 32.) (See Note 9.) **NOTE:** Accomplish this procedure at each tire change, or in the event of a hard or overweight landing.
X	X			5. Brake assemblies for wear, cracks, hydraulic leaks, and proper release. Brake lines for proper routing and leaks.
X	X			6. Landing gear shock struts for proper servicing. (Refer to Chapter 12.) Correct fluid levels and servicing pressures are required to assure proper operation of the assembly and to avoid internal strut damage.
	X			7. Landing gear actuator attachments and support structure for security and landing gear attach points for general condition. Nose gear actuator lower attach bracket, in the area around grease fitting, for cracks emanating from the fitting hole.
	X			8. Main landing gear torque links for looseness.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				I. **LANDING GEAR** (CONT'D)
X	X			9. Remove retainer ring lockscrew from main and nose landing gear struts. Assure that screw is not bent or otherwise damaged. Replace if necessary. (Refer to Chapter 32.)
	X			10. Perform retraction check, check automatic brake snubbing and retract cycle and landing lights for retract cutoff.
	X			11. Landing gear squat switches for proper operation and condition.
				J. **ENGINE NACELLES (TYPICAL)**
	X			1. Fire detector elements for chafing, security of clamps, and general condition.
X	X			2. Nacelle structure, skin, and fasteners for cleanliness and general condition.
	X			3. Hydraulic hose fire sleeves for cracking or discoloration. If evidence of cracking or discoloration exists, wrap the sleeves with 3M-361 fiberglass tape.
	X			4. Fuel hoses for security and general condition.
	X			5. Inlet duct seals for security and general condition.
X	X			6. Rear nacelle for security and general condition.
X	X			7. Generator inlet duct seal for security and general condition.
X	X			8. Aircraft equipped with thrust reversers, inspect and lubricate per Dee Howard Thrust Reverser Maintenance Manual.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				K. **FORWARD FUSELAGE**
X	X			1. Nose compartment doors and fasteners for general condition, proper fit, and seals for bonding and general condition.
X	X			2. Radome for general condition, finish, and security.
	X			3. Marker beacon and glideslope antennas for general condition and security.
	X			4. Pitot tubes, plumbing, and wiring for condition and security, Plumbing for low spots.
X	X			5. Static ports for distortion. Plumbing for condition, security and low spots. On aircraft incorporating SB 23/24/25-320 (Inspection of Static Ports) or AAK 82-8 (Handling Qualities Improvement for Aircraft Not Equipped with Reduced Approach Speed System), or AMK 83-4 (Handling Qualities Improvement (Softflite 1) for Aircraft Not Equipped with Reduced Approach Speed System), AMK 83-5 or AAK 79-10 (Installation of Wing Fences, Stall Strips, or Boundary Layer Energizers), inspect that one-inch area around static ports are free from obstructions and are polished.
	X			6. Autopilot altitude controller static and drain lines for condition and security. Check operation of drain valves.
X	X			7. Angle of attack vanes for condition and security.
	X			8. Windshield defog ducts and external outlets for security.
X	X			9. Nose compartment for cleanliness. Electronic installation for security of mounting and proper wiring routing.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				K. FORWARD FUSELAGE (CONT'D)
	X			10. Clean alcohol anti-ice filter element. Replace filter element if made of paper. Check tank for security and quantity of fluid. (Refer to Chapter 30.)
	X			11. Nose gear actuator boot and hydraulic plumbing at top of actuator for security.
X	X			12. Installation forward of frame 5 for general condition, security of mounting, and proper line routing.
	X			13. Perform operational check of alcohol anti-ice system. (Refer to Chapter 30.)
				L. ENGINE INSPECTION
				1. Refer to Engine Maintenance Manual (SEI-186) for Inspection requirements and intervals.
	X			2. Visually inspect engine exhaust nozzles for cracks. Cracks less than 3 inches may be welded by a certified welder using inert gas method. Nozzles with cracks larger than 3 inches must be replaced.
X	X			3. Check length of all starter-generator brushes. (Refer to Chapter 80.)
	X			4. Remove ball joint connector from engine end of throttle cable (RH & LH). Clean ball joint with solvent and inspect for excessive binding or wear. Pack threaded hole of ball joint connector with MIL-C-81322 grease and screw connector back onto throttle cable. Assure that grease is forced around ball. Check throttle cable rigging and safety wire jamnut.

Interval		Approval		DESCRIPTION
200	400	Mech	Insp	
				L. **ENGINE INSPECTION** (CONT'D) 5. Perform Inspection/Check of engine mounts. (Refer to Chapter 71.) **NOTE:** This inspection is to coincide with the engine hot section inspection as dictated in the Engine Maintenance Manual.
	X			M. **GENERAL** 1. Check that all applicable FAA Airworthiness Directives are complied with and Log Book entries made.
	X			2. Review Manufacturer's Service Bulletins and Airplane Modification Kits for applicability.
	X			3. Check that all aircraft papers are current and in order before release of aircraft.
X	X			4. Replace and/or overhaul items listed in Chapter 4 and 5-10-04 which may coincide with this interval.
X	X			5. Perform all lubrication requirements which coincide with these inspection intervals. (Refer to Chapter 12.)
X	X			6. Check that all necessary unscheduled Maintenance Checks (5-50-00) have been complied with.

SPECIAL INSPECTIONS

1. GENERAL

A. The following recommended Special Inspection Requirements are considered necessary to ensure safe operation of the Learjet aircraft and are intended to preserve the aircraft airworthiness and reliability. Visual inspection techniques are to be used at all times and are to be supplemented with other techniques as indicated herein and in the NDI Manual (Non-Destructive Inspection) to obtain definitive results. These techniques include x-ray, eddy current, dye penetrant, Magnaflux, etc.

B. The primary purpose of the long term inspection is to detect and correct possible fatigue and corrosion damage. Fatigue damage is generally related to the number of flight hours or landings and the type of flight operations. Corrosion is related to a number of factors including flight hours, calendar time, and operational environment. Generally, the inspection schedule for these types of degradation have been established based on laboratory fatigue test program results, analytical fatigue damage and crack propagation assessments, reported service difficulties, or other factors that may affect airworthiness.

C. The special inspections outlined herein include those for inadvertent or unplanned operational conditions. These consist of:

Hard or Overweight Landings (and other gear overload conditions)
Severe Turbulence and/or Maneuvers
Engine Change
Rejected Takeoff
Overspeed Recovery (Landing Gear Extension at High Speed)
Sod Runway Landings (for approved aircraft)

Other special inspections are described for planned maintenance intervals related to calendar time, flight hours, landings, or a combination of flight hours and calendar time. These include:

(A/C 25-061, 25-070 thru 25-229)	(A/C Certified for 51,000 Ft. Operation) (A/C 25-230 and On - See Step H)
6-Months	6-Months
12-Months	12-Months
24-Months	24-Months
600 Flight Hours	600 Flight Hours
1200 Flight Hours	1200 Flight Hours
2400 Flight Hours	2400 Flight Hours
6000 Landings	3000 Landings
7200 Hours/12 Years	6000 Landings/12 Years
12000 Hours (Initial); 6000 Hrs. Subsequent	12000 Flight Hours (Initial); 6000 Hrs. Subsequent

D. The pressurized cabin section of the aircraft is protected externally by use of clad aluminum skins, adequately primed and painted using a polurethane paint system. In local areas, a polyester filler compound is used to achieve desired aerodynamic surface characteristics. Internally, the surfaces are protected by a zinc chromate or epoxy primer system and sprayed-on foam-in-place polyurethane foam insulation. This semi-closed cell foam is trimmed back, generally to a stringer height level and, below the floorboards, is seal coated with a polyester facing to minimize the possibility of fluid absorption. At various locations along the center of the aircraft, sump bays are provided with small drain holes for fluid overboard discharge.

The polyurethane foam is a superior means of corrosion control, if properly maintained. Its efficiency as a thermal barrier minimizes the formation of condensation since the cold cabin skin is insulated from the warm cabin air. For maximum effectiveness, it is imperative that a sound foam condition be maintained. If not properly maintained, the combination of moisture and foam in contact with unprotected aluminum structure, may accelerate corrosion.

When performing certain inspections, it will be necessary to remove local areas of foam. To facilitate this, a wax parting agent has been used on the structure in these areas.

E. Aircraft that have been in service for a significant amount of time may have been subjected to a number of different exterior paint applications. Since old paint removal may have been accomplished by a combination of stripping and sanding plus additional sanding for surface roughening for primer or paint adhesion, a requirement has been included to measure the skin thickness in the pressure cabin area of the fuselage. This is necessary to assure the airworthiness of the fuselage for pressurization loads. Accordingly, a section of these inspection procedures defines the location, technique, and disposition instructions. These measurements are to be obtained during the 7200 hour/12 year inspection. These measurements are to be obtained during the 7200 hour/12 year inspection. Alternately, these skin thickness measurements may be accomplished at an earlier time during possible repainting periods.

The certification date of record is that listed in the aircraft Log book. For aircraft not achieving the flight hours, landings, or calendar time specified for the various inspections, the certification date is considered as the baseline. For those aircraft that have already complied with part or all of these inspections, the baseline is generally considered to be the status of the 'return to service' date.

F. A number of features have been incorporated into this inspection program that will facilitate the necessary planning for a plan that will assure the continued airworthiness of Learjet aircraft. These include:

° A summary of x-ray and eddy current inspections have been included.

° An NDI Manual and Gates Learjet authorization procedure has been prepared which identifies the techniques necessary to accomplish reliable x-ray and eddy current inspection results.

° Those inspections more associated with the number of landings have been isolated. (Landing gear and pressure cabin for later production aircraft.) This allows the individual operator to plan the inspection program tailored to his specific needs. An operator with an average stage length of 2.0 hours will have an inspection frequency one-half the flight hour frequency of the operator having a stage length of 1.0 hours.

° A list of major component removals is included for the applicable inspections.

° A tabular inspection planning aid is included wherein different aircraft ages, utilization rates, and stage lengths are examined and future inspection needs are projected based on landings, flight hours, and years from present as well as total amounts. Older aircraft already having accomplished major inspections are included. These are 'typical' examples but should answer questions about future inspection needs.

G. The 12,000 flight hour inspection defined herein is designed primarily to detect fatigue cracks that may occur for the major structural components. Low utilization aircraft will be relatively unaffected by this inspection. For the higher utilization operations, this inspection is to be accomplished initially at 12,000 flight hours with subsequent inspections required at 6000 flight hour intervals. The purpose of the subsequent inspections at 6000 flight hours is recognition of the potential problems that may occur on aging aircraft wherein fatigue damage rates may be accelerated or the probability for missed defects may occur.

H. Model 25 aircraft effective 25-230 and on are eligible for flight operations up to 51,000 feet maximum altitude. The certification basis for these aircraft involved additional pressure cabin structural integrity demonstrations to the requirements of the Special Conditions. These conditions required that satisfactory crack growth characteristics be demonstrated from an inspectable level of damage for an operational service time representing two major inspection periods. This 'missed inspection' concept consequently affects or determines the structural inspection frequency of the pressure cabin structure for those aircraft certified for 51,000 ft. altitude flight operations.

The most dominant loading experienced by the pressure cabin is due to pressurization loads. With respect to inspections, the number of landings is a better definition of load cycles than is the number of flight hours. This eliminates the assumption of an 'average' stage length and allows the operator to define an inspection program that fits the needs of the specific operation being considered. Accordingly, then, those pressure cabin inspections required for 51,000 ft. flight operations (A/C 25-230 and on) are specified in number of landings.

The 51,000 ft. aircraft will also be required to observe a maximum age or calendar time requirement for part of these inspections. The purpose of this time requirement is to monitor the corrosion health of the pressure cabin for those aircraft having a low-to-moderate utilization rate.

I. The inspections defined herein constitute what the manufacturer considers necessary to assure the continued airworthiness of Learjet aircraft. As such, this program represents the Manufacturer's Recommended Program in the context of the applicable paragraphs of the operational rules of Part 91 and 135. An integral element of this program is the referenced NDE Manual, including the GLC Authorization Procedure contained herein. This authorization procedure involves specific instruction and training in conducting the x-ray, eddy current, and optical inspections identified by this Service Manual. The manufacturer considers the training afforded by this authorization procedure to be in the best interests of achieving consistently valid inspection results thus ensuring the continued airworthiness of the aircraft.

J. The following facilities are presently authorized to perform Nondestructive Inspections:

Paragon NDT & Finishes, Inc.
P.O. Box 13297
Wichita, Kansas 67213

NDE Services, Inc.
8775 East Orchard Road
Suite 809
Englewood, CO 80111

All American Maintenance
10826 Gulfdale
San Antonio, Texas 78216

K. LIGHTNING STRIKE INSPECTION

Perform the following inspection criteria when it is suspected or known that the aircraft has been struck by lightning. In many cases, occupants and flight crews may not be aware that the aircraft may have been struck by lightning.

(1) General

(a) Inspect aircraft extremities for evidence of lightning attachment. The evidence is usually indicated by spots of molten and resolidified metal ranging in diameter from 0.004 to 0.04 inch, usually surrounded by a region of discolored paint.

(b) Generally, skin damage will be limited to minor pitting or fusing of a few rivet heads, but small punctures do sometimes occur.

(c) Ferrous metals can become magnetized. All ferrous metal components in critical areas should be inspected. After parts have been demagnetized, all compasses should be recalibrated by compass swinging.

(d) Lightning strikes may indirectly affect electronic equipment located elsewhere in the aircraft from the point of lightning attachment.

(2) Inspection

(a) Determine where the lightning struck the aircraft and inspect the surrounding area carefully for damage.

(b) Determine where the lightning exited the aircraft and inspect the surrounding area carefully for damage.

(c) From the determination of the entry and exit points, a probable electrical path of the lightning through the aircraft can be established. It is along this path the inspection needs to be concentrated, but not necessarily restricted to this path.

1) Inspect all static wicks.
2) Inspect all flight control surface electrical bonding straps.
3) Generally inspect all radio and navigation antennas. If electrical and avionics functional checks isolate a damaged component, then a more thorough inspection of this system antenna should be accomplished.
4) Inspect radome area carefully for puncture or delamination points. If damage is found, remove the radome and inspect for further damage to radome or radar components.
5) Inspect fuselage and empennage for burnt spots.
6) Inspect wing and tip tanks for burnt spots.
7) Inspect flight control surface skins for burnt spots.
8) Inspect flight control bearings for a rough or welded condition.
9) Inspect all control cables for damage.
10) Inspect pulley bearings for rough or welded condition.
11) Inspect hydraulic and fuel lines for burnt spots.
12) Perform complete electrical and avionics preflight.
13) Perform magnetic compass compensation.
14) Inspect engines for general condition.
15) Mark log book to indicate lightning strike.

INSPECTION SUMMARY EXAMPLES

NO.	INSPECTION PARAMETER	AGE / UTILIZATION	RELATIVE AIRCRAFT AGE AND UTILIZATION								
			OLDER AIRCRAFT			MODERATE AGE AIRCRAFT			NEWER AIRCRAFT		
			LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
1	Present Aircraft Age (Years)		18	16	14	12	10	8	6	4	2
2	Present Total Time (Flt. Hrs.)		4320	7680	10080	2880	4800	5760	1440	1920	1440
3	Avg. Monthly Use (Flt. Hrs.)		20	40	60	20	40	60	20	40	60
4	Avg. Flight Length (Flt. Hrs.)		1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
5	Present Total Landings (Approx.)		4320	5120	5040	2880	3200	2880	1440	1280	720
6	Initial Major Inspection										
	a) Total Flight Hours		2400	4800	6000	2400					
	b) Age (Years)		10.0	10.0	8.3	10.0	NOT YET ACCOMPLISHED				
	c) Landings		2400	3200	3000	2400					
7	Future Major Inspection Requirements										
	a) 6000 Landing Inspection										
	i) From Present - Landings		4080	4080	3960	5520	2800	3120	4560	4720	5280
	ii) - Flight Hours		4080	6120	7920	5520	4200	6240	4560	7080	10560
	iii) - Years		17.0	12.75	11.0	23.0	8.75	8.67	19.0	14.75	14.67
	iv) Total - Landings		8400	9200	9000	8400	6000	6000	6000	6000	6000
	v) - Flight Hours		8400	13800	18000	8400	9000	12000	6000	9000	12000
	vi) - Years		35.0	28.75	25.0	35.0	18.75	16.67	25.0	18.75	16.67
	b) 7200 Hrs./12 Yrs. Inspection										
	i) From Present - Flight Hours		960	2880	3120	2400	960	1440	1440	3840	5760
	ii) - Years		4.0	6.0	4.33	10.0	2.0	2.0	6.0	8.0	8.0
	iii) Total - Flight Hours		5280	10560	13200	5280	5760	7200	2880	5760	7200
	iv) - Years		22.0	22.0	18.33	22.0	12.0	10.0	12.0	12.0	10.0
	c) 12000 Flight Hours Inspection (INITIAL)										
	i) From Present - Flight Hours		7680	4320	1920	9120	7200	6240	10560	10080	10560
	ii) - Years		32	9.0	2.7	38	15.0	8.7	44	21	14.7
	iii) Total - Flight Hours		12000	12000	12000	12000	12000	12000	12000	12000	12000
	iv) - Years		50	25.0	16.7	50	25.0	16.7	50	25	16.7

Underlined values are limits that establish inspection requirements.

SUMMARY OF X-RAY AND EDDY CURRENT INSPECTION

INSPECTION INTERVAL	REFERENCE SECTION		INSPECTION DESCRIPTION	TYPE	
	*Paragraph	NDI Manual		X-Ray	Eddy Current
6000 Landing/12 Year +20 Landings +2 Weeks (For Aircraft 25-230 and On.) (Aircraft Certified for 51,000 Ft. Operation)	B-7	57-12-01	Upper inboard wing surface corrosion.	X	
	B-8	Part 3	Lower center line wing doubler. Lower skin to WS 60 (Spars 4, 5, & 7). Lower wing skin adjacent to access plates.		X X X
	D-1	56-10-01	Windshield support structure.	X	
	D-3	53-14-01	Aft pressure bulkhead - wall and lateral stiffener beams.	X	
	D-6	52-10-01	Cabin door hinges and framing structure.	X	
	D-10	56-21-01 56-20-01	Cabin windows and framing members.	X	
	D-11	54-10-01	Aft pylon structure for corrosion.	X	
	D-13	53-10-01 53-11-01 53-12-01 53-13-01	Longitudinal and circumferential skin splices in pressure cabin.	X	

*NOTE: This Paragraph reference is to the paragraph of the particular inspection listed in the INSPECTION INTERVAL column.

SUMMARY OF X-RAY AND EDDY CURRENT INSPECTION

INSPECTION INTERVAL	REFERENCE SECTION		INSPECTION DESCRIPTION	TYPE	
	*Paragraph	NDI Manual		X-Ray	Eddy Current
Hard or Overweight Landing	B-4	Part 3	Landing gear trunnion fittings.	X	X
3000 Landings +20 Landings (A/C 25-230 and On.) (Aircraft Certified for 51,000 Ft. Operation.)	A-3	52-10-01 Pos. CD8 & CD10	Forward and aft corner of upper main entry door - Frame/skin splice at Stringer 6.	X	
	A-4	53-12-01	Crown skin circumferential splice at Frame 22. As required.	X	
	A-5	53-12-01	Crown skin circumferential splice at Frames 15 and 19. As required.	X	
7200 Hr/12 Year +20 Flight Hours +2 Weeks (For Aircraft 25-061, 25-070 thru 25-229) (Aircraft Not Approved for 51,000 Ft. Operation)	B-7	57-12-01	Upper inboard wing surface corrosion.	X	
	B-8	Part 3	Lower center line wing doubler. Lower skin to WS 60 (Spars 4, 5, & 7). Lower wing skin adjacent to access plates.		X X X
	D-1	56-10-01	Windshield support structure.	X	
	D-4	52-10-01	Cabin door hinges and framing structure.	X	

***NOTE:** This Paragraph reference is to the paragraph of the particular inspection listed in the INSPECTION INTERVAL column.

SUMMARY OF X-RAY AND EDDY CURRENT INSPECTION

INSPECTION INTERVAL	REFERENCE SECTION		INSPECTION DESCRIPTION	TYPE	
	*Paragraph	NDI Manual		X-Ray	Eddy Current
7200 Hr/12 Year (Cont)	D-8	52-21-01 56-20-01	Cabin windows and framing members.	X	
	D-9	54-10-01	Aft pylon structure for corrosion.	X	
	D-11	53-10-01 53-11-01 53-12-01 53-13-01	Longitudinal and circumferential skin splices in pressure cabin.	X	
12000 Hour +20 Hours Initial	A-1	Part 3	Lower wing surface adjacent to access and fuel pump hole locations from center line to BL 92.0.		X
6000 +20 Subsequent	A-2	Part 3	Wing to fuselage - lug areas.		X
	A-3	57-10-01 57-11-01	Upper and lower wing surface in center line doubler area.	X	
	A-4	Part 3	Lower center line splice plates adjacent to BL 0.0 rib.		X
	A-5	Part 3	Lower center line doubler along spars 3, 4, 5, 7 & 8.		X

***NOTE:** This Paragraph reference is to the paragraph of the particular inspection listed in the INSPECTION INTERVAL column.

SUMMARY OF X-RAY AND EDDY CURRENT INSPECTION

INSPECTION INTERVAL	REFERENCE SECTION		INSPECTION DESCRIPTION	TYPE	
	*Paragraph	NDI Manual		X-Ray	Eddy Current
12000 Hour (Cont'd)	A-5	Part 3	Skin along spars 3, 4, 5, 6, 7, & 8 out to W.S. 92.0.		X
			Spar 5 and 7 webs in wheel well area adjacent to access plate cut-outs.		X
			Spar 5 and 7 web along lower cap of spars 5 & 7.		X
			Holes common to main gear trunnion fittings and lower spar caps - Probe.		X
	B-1	Part 3	Wing to fuselage fittings - lug area.		X
	C-4	55-20-01	Elevator surface LBL 36 to RBL 36.	X	
	D-3	55-10-01	Inboard structure of horizontal stabilizer.	X	
		Part 3	Upper and lower skin along BL 4.5 splice.		X
			Upper and lower front and rear spar caps from LBL 25 to RBL 25.		X

*NOTE: This Paragraph reference is to the paragraph of the particular inspection listed in the INSPECTION INTERVAL column.

SUMMARY OF X-RAY AND EDDY CURRENT INSPECTION

INSPECTION INTERVAL	REFERENCE SECTION		INSPECTION DESCRIPTION	TYPE	
	*Paragraph	NDI Manual		X-Ray	Eddy Current
12000 Hour (Cont'd)	D-3	Part 3	Vertical leg of rear spar cap-LBL 25 to RBL 25.		X
			Upper actuator fitting attachment structure.		X
	D-4	Part 3	Vertical stabilizer pivot fitting and attaching structure.		X
		55-30-01	Attachment of Dorne-Margolin Antenna to vertical stabilizer structure.	X	

*NOTE: This Paragraph reference is to the paragraph of the particular inspection listed in the INSPECTION INTERVAL column.

SPECIAL PRESSURE CABIN SKIN THICKNESS MEASUREMENT

(To be accomplished at each 7200 Hr/12 Year or 6000 Landing/12 Year inspection or at an earlier time when aircraft has been stripped for repaint preparation.)

General

The purpose of this pressure cabin skin thickness measurement is to monitor the effects of multiple paint applications that may have occurred to aircraft that have been in service for a considerable period of time. Old paint removal may have been accomplished by a combination of stripping and sanding plus additional sanding for surface roughening for new primer/paint adhesion. Experience has shown that up to .002 inches of skin thickness removal occurs with each sanding operation. This results in degraded levels of fatigue and crack propagation characteristics for the pressure cabin skins on aircraft that have been subjected to multiple operations. The procedure below outlines the necessary skin thickness measurements and procedures that are required to compensate for a possible 'thin skin' condition.

Measurement Locations

The following figures illustrate the general locations for measurement of the local skin thickness. There are a total of eighteen location sites distributed throughout the pressure cabin area. The local thickness may be determined by any reliable means, but the recommended method is the use of an ultrasonic device such as "vidigage' or equivalent. This equipment may be used from inside the aircraft or may be used externally. For inside use, the foam must be removed locally down to the skin interior surface and slightly away from the adjacent stringer or frame fuselage attachment to provide proper probe clearance. For exterior surface use, the paint and any body filler must be removed down to the basic skin exterior surface. Following thickness measurements, the readings are to be averaged as described below.

Thickness Measurement Evaluation

After a reliable skin thickness measurement has been established for each of the sites depicted by the following figures, the evaluation of these results are to be accomplished in the following manner:

1) Rank order the thickness values in descending order (t_1 = .040, T_2 = .038, etc.)

2) Isolate the lower (thinner) one-half of the readings. Average these to determine a representative 'thin' value.

3) Compare this average 'thin' value with the disposition chart included below.

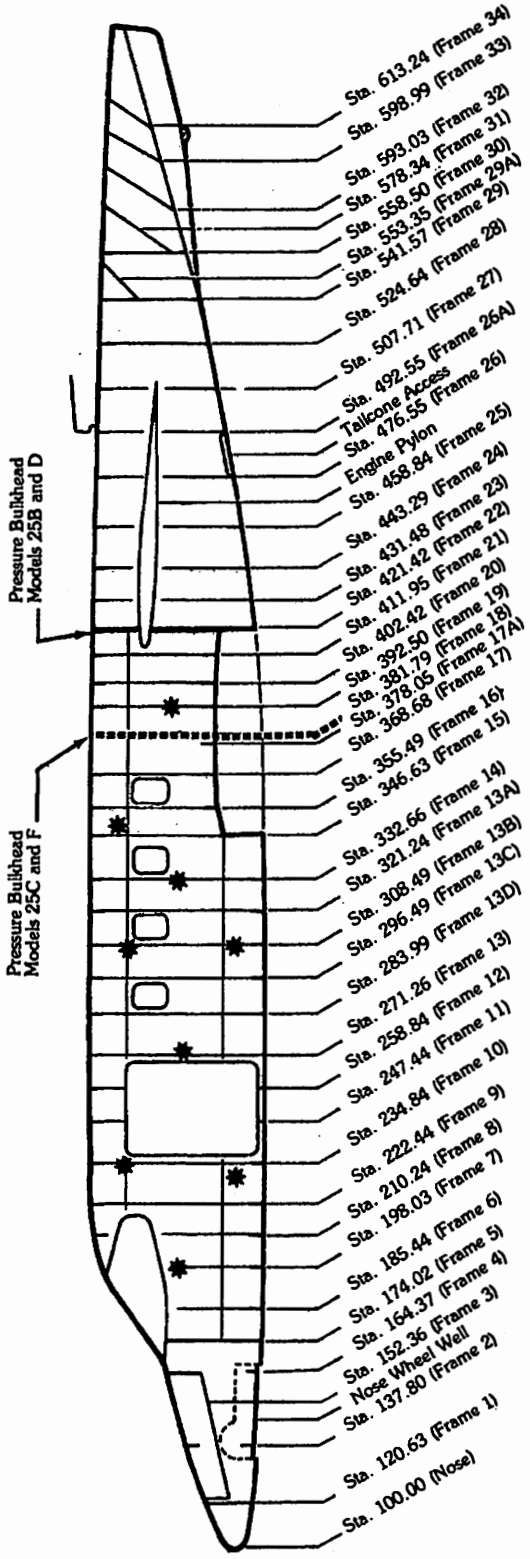
Average Skin 'Thin" Value (In.)	Disposition
.037" and above	Adhere to standard inspection program.
.036" and below	Call Gates Learjet Manager Field Service for disposition assistance. Have individual thickness values available to expedite disposition.

Subsequent Paint Applications

It is emphasized that the repainting procedure for aircraft should minimize any sanding activity on the pressure cabin skin. It may not be feasible to eliminate sanding altogether, but curtailed use is recommended and where absolutely necessary, the smallest grit size possible (largest number) should be used.

Chapter 20 of this Maintenance Manual outlines an acceptable technique for repainting an aircraft. This procedure is recommended to minimize further degradation of your Learjet pressure cabin structural integrity.

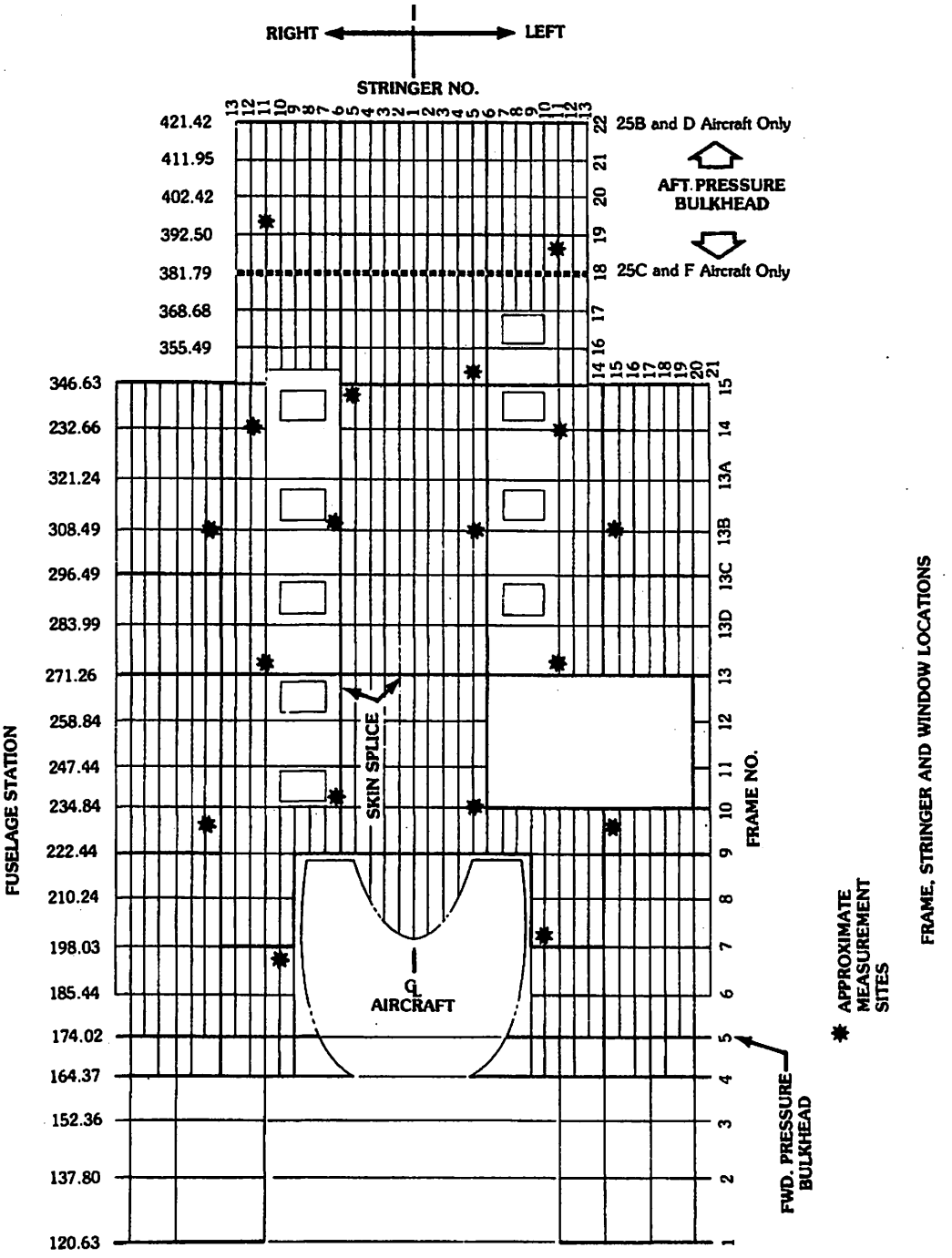
SKIN THICKNESS MEASUREMENT LOCATIONS (7200 HOUR/12 YEAR INSPECTION)



✱ APPROXIMATE MEASUREMENT SITES

SKIN THICKNESS MEASUREMENT LOCATIONS (7200 HOUR/12 YEAR INSPECTION)

SKIN MATERIAL
FWD. OF FRAME 4 — .032 2024-T42
AFT OF FRAME 4 — .040 2024-T42



6-MONTH INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: Allowable tolerance for these inspections is +2 weeks.			
A. Conduct the following:			
1. Statically deploy the drag chute (using adequate precautions) to check release mechanism; inspect and repack. Refer to Drag Chute Supplement if aircraft is modified per AAK73-1 or AAK73-4A (Drag Chute Supplement).			
2. Perform all lubrication requirements which coincide with this inspection interval.			
3. Check engine fire extinguisher container pressure gage for proper pressure. Perform a functional test of engine fire extinguishing system. (Refer to Chapter 26.)			
4. Perform emergency exit and wing inspection light power supply battery discharge-recharge cycle. (Refer to Chapter 12.)			
B. At each 6-month interval following the 7200-hour/6000-landing/12-year inspection, conduct the following inspection:			
NOTE: If the 7200-hour/6000-landing/12-year inspection shows no evidence of bacterial growth, corrosion, or structural fatigue, inspection is to be performed at 12-month inspection.			
1. Remove the outboard lower wing skin access covers. Using a light source and a mirror, inspect the inner wing structure for bacterial growth, corrosion, and fatigue cracks. If corrosion exists at this location, remove all lower surface access covers and inspect the remaining wing structure.			

12-MONTH INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: Allowable tolerance for these inspections is +2 weeks.			
A. Conduct the following inspection:			
1. Defuel the wing tip fuel tanks, remove upper access covers, and inspect the tip tank and fuel jettison shutoff valves as follows:			
a. Using an explosion-proof light, inspect fuel jettison tubes (both inside and outside the tip tank) for foreign material, grit, and dust. Clean tube as required.			
b. Perform an operational check of fuel jettison shutoff valves. Visually (from outside the tip tank) verify that the fuel jettison shut-off valves open and close properly. Verify proper operation of the fuel control panel indicator light.			
c. Using an explosion-proof light, inspect the tip tanks, especially at the bulkhead/skin interfaces, for bacterial growth and corrosion. Bacterial growth is identified by a dark sludge on the skin surface.			
NOTE: °Tip tanks may contain a blue-gray sludge on the skin surface which is not a bacterial growth.			
°If the area is clean proceed to step g.			
d. If the tip tank contains any sludge, remove the sludge from the bottom skin in the area of the aft water drain valve. Inspect this area for integrity of tank coating and for any corrosion. If corrosion is found in the tip tanks, perform step e.			

12-MONTH INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
e. Defuel wing tanks and remove three access covers between WS 53 and 93. Using an explosion-proof light, check the entire area for bacterial growth and corrosion.			
f. Flush fuel tanks and repair corrosion. (Refer to Chapter 20.)			
g. Install access covers and refuel aircraft. (Refer to Chapter 12.) Check fuel tanks and fuel jettison shutoff valves for leaks.			
2. Remove baggage compartment upholstery and check aircraft structure for corrosion. (Refer to Chapter 20.)			

24-MONTH INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: Allowable tolerance for these inspections is +2 weeks.			
A. Perform pitot-static system leak check. (Refer to Chapter 34.)			

600-HOUR INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: The allowable tolerance for 600-Hour Inspection is +20 flight hours.			
A. Flight Controls			
NOTE: If the capstan slip clutch torque exceeds the specified values, disassemble the drum assembly, clean and relubricate the internal surface (both sides) of drum with a light application of Dow Corning No. 33 grease. Reassemble drum assembly and adjust slip clutch.			
1. Check aileron servo capstan slip clutch torque. (Refer to Chapter 22.)			
2. Check rudder servo capstan slip clutch torque. (Refer to Chapter 34.)			
3. Check elevator servo capstan slip clutch torque. (Refer to Chapter 22.)			
4. Structure and controls in tunnel from pedestal and control column to frame 22 for operation, proper clearances, and general condition.			
5. Check aileron control system cable tension aft of servo attachment. (Refer to Chapter 27.)			
6. Check aileron servo cable tension.			

600-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
7. Check aileron control system cable tension forward of servo attachment. (Refer to Chapter 27.)			
8. Check flap control system cable tension. (Refer to Chapter 27.)			
9. Check rudder control system cable tension. (Refer to Chapter 27.)			
10. Check primary and secondary yaw servo cable tension. (Refer to Chapter 22.)			
11. Check elevator control system cable tension. (Refer to Chapter 27.)			
12. Check elevator servo cable tension. (Refer to Chapter 22.)			
13. Check aileron/rudder interconnect cable tension. (Refer to Chapter 27.)			
14. Stabilizer actuator. (Refer to 5-10-04, OVERHAUL ITEMS.)			
15. Forward spoiler actuator bolt (25-061, 25-070 thru 25-114 not incorporating AMK 73-1; remove and replace bolt in accordance with SB 24/25-237 and Replacement Schedule Chapter 4-00-00). On 25-115 and Subsequent, check spoiler actuator installation for security, cracks, and general condition.			
16. Upper flap surface for skin cracks and loose rivets.			

600-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
17. Lubricate flap actuator piston rod felt wiper. Lubrication is accomplished through the lubrication hole located on the rod end of the actuator. Lubricate only with MIL-H-5606 hydraulic fluid.			
18. Inspect the aileron, rudder, and elevator balance weight installations and support structure. Inspect for evidence of vibration, fastener working, fatigue cracks, and general security. Remove access covers as required for definitive inspection of internal mounting brackets or structure.			
B. Fuselage			
1. Electrical wiring, hydraulic and pneumatic lines under floorboards for leakage, security, and condition.			
2. Inspect cabin exhaust control valve and cabin safety valve for contamination. If valve poppet and seat or noise suppression screen is contaminated, remove valve and clean with mild detergent. (Refer to Chapter 21.)			
3. Remove headliner and close out panel in the area of the emergency escape hatch. Check latching mechanism for operation.			
C. Electrical			
1. Perform functional check of Mach/Overspeed switch. (Refer to Chapter 34.)			
2. Perform functional check of Mach switch. (Refer to Chapter 34.)			
3. Pedestal interior wiring for proper wire routing, clearances, deterioration, etc.			

600-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
4. Perform functional check of battery temperature sensor. (Refer to Chapter 24.)			
5. Perform discharge-recharge cycle of batteries in downed aircraft locator transmitter. (Refer to Chapter 12.)			
6. Inspect reverser current diode for dirt or other foreign matter. (Refer to Chapter 24.)			
D. Wing			
1. Perform functional check of the wing fuel pressure switch. (Refer to Chapter 28.)			
2. Perform operational check of the wing low fuel warning system. (Refer to Chapter 28.)			
3. Remove the lower access covers from the wing and using adequate lighting and a mirror, inspect wing flapper valves for freedom of movement, security, and general condition. This inspection includes the flapper valves from W.S. 53.04 inboard to W.S. 00, RH and LH wings. Also inspect adjacent interior structure for corrosion, fatigue cracks, loose or missing fasteners, and bacterial growth.			
E. Landing Gear			
1. Remove and inspect union filter in emergency gear and brake lines. Install new filter if necessary.			
NOTE: The emergency gear union filter is located at the emergency gear valve where emergency air supply enters valve. The emergency brake union filter is located at the emergency brake valve where emergency air supply enters valve. On Aircraft 25-195 and Subsequent, a third filter is installed in the emergency brake air line just below the pedestal inside the keel beam.			

600-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
2. Perform emergency air extension system plumbing leakage check. (Refer to Chapter 32.)			
3. Lubricate nose gear actuator and gear door actuator piston rod felt wiper. Lubrication is accomplished through the lubrication hole on the rod end of the actuator. Lubricate only with MIL-H-5606 hydraulic fluid.			
F. Air Conditioning			
1. Perform a visual and dye penetrant or eddy current inspection of the air conditioner compressor fan blades. Particular attention should be given to the fan blades in the area of the hub.			
G. Temperature Controls			
1. Remove, inspect, and clean temperature control filters. (25-302 and Subsequent and aircraft incorporating AAK 82-2, "Installation of Cabin Temperature Control System Filters") (Refer to Chapter 21.)			
H. Cabin			
1. All lavatory paper and linen waste receptacles and access doors and disposal doors for proper operation, fit, sealing, and latching.			
I. Engine Inspection			
1. Perform functional check of Woodward Engine Synchronizer Power Lever Rigging (if installed). (Refer to Woodward Service Bulletin 33071, 33104, or 33144.)			

1200-HOUR INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: The allowable tolerance for 1200-Hour Inspection is +20 flight hours. Applicable items from Replacement Schedule have no tolerance over the value listed.			
A. Wing			
1. Remove wing-to-fuselage fairings and inspect wing skins, wing-to-fuselage attach fittings, and adjacent structure for corrosion, fastener security, cracks, permanent deformation, protective coating, and general condition.			
2. Wheel well and center section of wing panel for general condition of skin, spars, attach fittings, and supporting structure, landing gear rib, and trunnion fittings. Check for permanent deformation, fatigue cracks, protective finish condition, and general security.			
3. Tip tank to wing attach fittings for security, fastener condition, cracks, and permanent deformation. Removal of access straps is not required unless fasteners show evidence of overloading or joint working.			
4. Trailing edge region of wing for local deformation affecting normal usage of flap and aileron..			

1200-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
6. With flaps extended, apply alternate up and down loads to flap trailing edge. Inspect inboard and outboard flap tracks and nose roller support structure for cracks, distortion, fastener condition, evidence of chafing or interference, and general security. To be performed at the third 1200-hour inspection and each 1200-hour inspection thereafter.			
7. Inspect flap sector support brackets and local support structure for cracks, interference, permanent distortion, and fastener condition.			
C. Fuselage			
1. Inspect longitudinal and circumferential skin splices for fastener condition, fatigue cracks, and general splice condition.			
2. Inspect under wing keel beam and attachments for security, fastener condition, fatigue cracks, permanent deformation and torque (100 to 140 inch-pounds) of primary tension joint bolts.			
3. Nose wheel well for fastener security, panel fatigue cracks, and general condition.			
4. Nose gear support installation for security, fastener condition, fatigue cracks, or permanent deformation at trunnion fittings and actuator attachment support structure areas.			
5. Upper and lower door hinge installations for cracks, loose or missing fasteners, and general condition. Observe forward and aft edges of hinge installation while racking the doors with alternating loads.			
6. Dye penetrant inspect lower cabin door latch arms for cracks.			
7. Lower longeron in region of wing for fatigue cracks, permanent deformation, and general condition.			

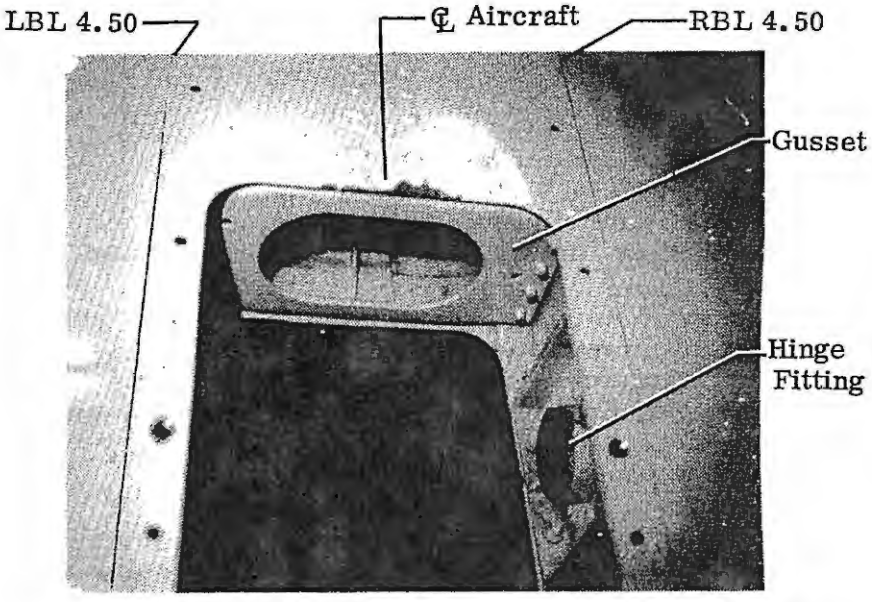
1200-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
8. Lower flanges of baggage floor beams for fastener condition, fatigue cracks, and permanent deformation.			
9. Bulkheads, frames, and stiffeners in the tailcone for fastener security, cracks, and general condition.			
10. Canted bulkheads and lower fin spar attachments in aft tailcone. Check for fastener security and permanent deformation at bulkheads and spar assemblies.			
11. Engine yokes for cracks at lightning holes, fasteners, engine mount attachments, and welds. .			
12. Pylon beams for cracks, fastener condition, attachment to fuselage frames, and general condition of fittings.			
13. Framing members of entry door for cracks, loose or missing fasteners, and general condition.			
14. Gain access to main gear wheel area of wing by disconnecting actuator from inboard main gear door. Remove foam from accessible areas of lower caps of lateral floor beams at F.S. 378.05 and F.S. 400.28. Visually inspect lower caps and adjacent webs for evidence of fatigue cracks, corrosion, and general condition. Dye check as required for definitive results. (This inspection effective on Aircraft 25-230 and Subsequent.)			
15. Perform functional test of cabin pressurization system in accordance with Chapter 21. (This inspection effective on Aircraft 25-227 and Subsequent.)			
16. Lower cabin door mechanism check. Open upper and lower cabin doors. Move lower door handle toward the open and closed positions while restraining the door pin movement. Check for security and free play in mechanism. Excessive free play may be due to mechanism failure, excessive wear or deformation.			

1200-HOUR INSPECTION (CONT'D)

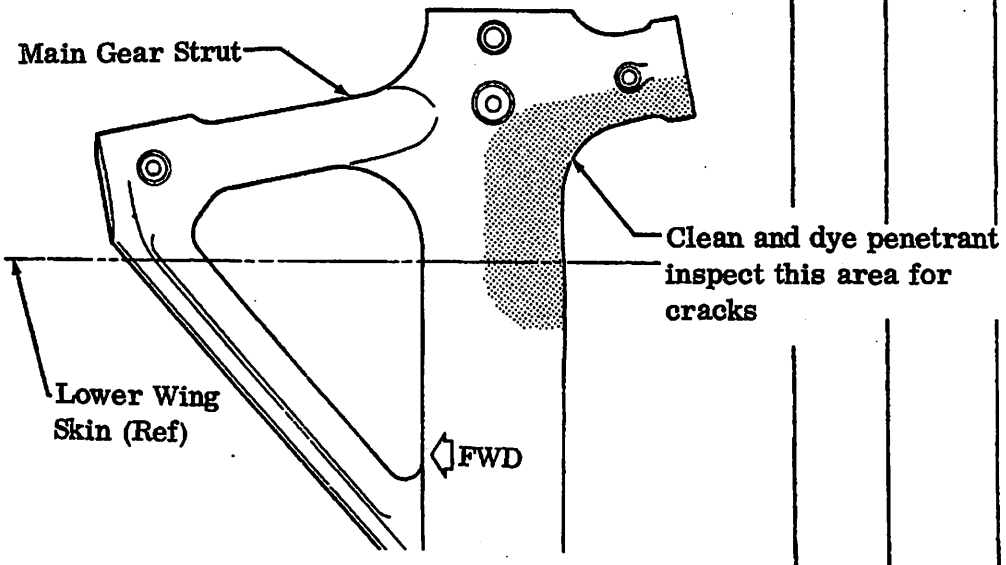
DESCRIPTION	MECH.	DATE	INSP.
17. Upper cabin door handle and rod control assembly free play check. Remove interior door upholstery to gain access to rod control assembly. Restrain the door pins and apply 75 pound force on upper door handle toward the closed and then to the open position. Observe inner door handle free play relative to rod control assembly. Excessive free play may be due to a worn rod control assembly bolt or worn shaft bolt holes. If this condition is found, disassemble and replace parts as required.			
D. Empennage			
1. Horizontal stabilizer skin for cracks originating from rivet locations at B.L. 4.5 splice joint and condition of fasteners, stiffeners, ribs, and spars in the center section region.			
2. With alternating up and down loads being applied to the stabilizer tip, observe actuator, hinge pin and hinge pin fitting areas for evidence of wear, looseness, free play, and general security.			
3. With rudder pedals restrained, apply alternating left and right loads to the rudder trailing edge. Observe rudder hinge fitting areas for looseness, free play, and general security.			
4. With control column fixed, apply alternate up and down loads to the elevator trailing edge. Inspect each elevator hinge location for looseness, free play, and general security.			
5. Vertical stabilizer for cracks, fastener condition, and security at primary attachments and structure in area of horizontal stabilizer attach fittings.			
6. Horizontal stabilizer rear spar. Inspect for corrosion and integrity of paint. Pay particular attention to the upper and lower spar caps.			

DESCRIPTION	MECH.	DATE	INSP.
7. Horizontal stabilizer gusset located between right and left B.L. 4.50 just forward of the hinge pin. Inspect gusset for cracks, corrosion, and general condition. This inspection effective on aircraft which do not have a doubler riveted to the gusset to form a double thickness.			



Looking Forward at Top of Horizontal Stabilizer

8. Inspect elevator downspring drawbolt where it passes through retainer. If excessive wear is found, the installation of SSK 960, "Replacement of Elevator Up/Down Spring Drawbolt and Retainer" is recommended. This inspection requirement is effective on Aircraft modified by AAK 70-5, "Automatic Flight Control Stability System," or AAK 76-4, "Reduced Approach Speed System." This inspection is not effective on aircraft which have installed SSK 960.

DESCRIPTION	MECH.	DATE	INSP.
E. Landing Gear			
1. Remove main landing gear wheels, brakes, and anti-skid transmitter. Clean axles and inspect for wear, roughness, and corrosion. (Refer to Chapter 12, Lubrication Requirements, prior to reinstallation.)			
2. Main gear and actuator for installation security, fastener condition, and permanent deformation. If end play exists between the main gear actuator rod and the threaded rod end, but does not exceed .004 inch, remove threaded rod end. Apply Loctite Retaining Compound No. 35 evenly to threads and reinstall rod end. With aircraft on jacks, level and landing gear fully extended, struts shall be perpendicular to ground within 0°10' (outbd) and 0°15' (inbd). If end play exceeds .004 inch, contact Gates Learjet Customer Service or a Gates Learjet Authorized Service Center.			
			
3. Clean and dye penetrant or eddy current inspect the upper aft portion of the main landing gear struts as shown below. This inspection to be performed and repeated after the initial 6000-landing inspection.			

1200-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
4. Remove nose landing gear wheel. Clean axle and inspect for wear, roughness, and corrosion. (Refer to Chapter 12, Lubrication Requirements, prior to reinstallation.)			
5. Nose gear and actuator for installation security, fatigue cracks, corrosion, and general condition.			
6. Remove and perform functional check of hydraulic brake fuses. (Refer to Chapter 32.)			
F. Electrical			
1. Perform functional check of refrigeration system pressure switch (if installed). (Refer to Chapter 21.)			
2. Perform compressor motor brush inspection. (Refer to Chapter 21.)			
G. Cockpit			
1. Remove and replace pressurization module filter. (Refer to Chapter 21.) (Aircraft equipped with throw-away filter element.)			
H. Cabin			
1. Remove and replace cabin safety valve filter. (Aircraft equipped with throw-away element.)			

2400-HOUR INSPECTION

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
NOTE: The allowable tolerance for this inspection is +20 flight hours. Applicable items from Replacement Schedule have no tolerance over the value listed.			
A. Fuselage			
1. Disconnect plumbing from the fire extinguisher two-way check valve assembly. Inspect for freedom of movement of the two-way check valve, evidence of defects, wear, and corrosion. Replace valve cap O-ring. Overhaul or replace valve assembly if evidence of defects exist.			
B. Flight Controls (Refer to Replacement Schedule)			
1. **Aileron**			
Remove and disassemble control column as required to inspect pulleys, bearings, electrical wiring for proper routing and chafing, and control columns for general condition. Prior to installation of new cables, move each aileron surface through the entire deflection range. Check for smoothness of operation, excessive friction, rough bearings, rust or corrosion, turning on bolt rather than bearing, and general condition. If discrepant condition is found, remove surface for more definitive evaluation and correction....			

2400-HOUR INSPECTION (CONT'D)

DESCRIPTION	MECH.	DATE	INSP.
2. **Rudder** With cables disconnected at aft bellcrank location, move rudder through the entire deflection range. Check for smoothness of operation, excessive friction, rough bearings, rust or corrosion, turning on bolt rather than bearing, and general condition. If discrepant condition is found, remove surface for more definitive evaluation and correction.			
3. **Elevator** With push-pull tubes disconnected from elevator bellcranks, move each elevator surface through the entire deflection range. Check for smoothness of operation, excessive friction, rough bearings, rust or corrosion, turning on bolt rather than bearing, and general condition. If discrepant condition is found, remove surface for more definitive evaluation and correction.....			
C. **Electrical** 1. Remove attaching parts security circuit breaker panel to structure. Check for loose circuit breaker terminals, loose wire terminals, corroded terminals or bus bars and evidence of wire insulation damage. (Refer to Chapter 24.)			

3000-LANDING INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date	A/C Due Out Date	
Description	Airframe Total Time	

	MECH.	DATE	INSP.
NOTE: ° Tolerance for this inspection is +20 landings. Applicable items from Replacement Schedule have no tolerance above the value listed. ° If the number of landings is undetermined, it is recommended a flight hour/landing ratio of 1:1 be used. **A. Fuselage** 1. Visually inspect the lower caps on the four transverse aft baggage floor beams forward of frame 22 and aft of the transition beam along the aft edge of the honeycomb baggage floor. Remove foam as required to gain access to the entire lower caps. Visually inspect from left longeron to right longeron for evidence of fatigue cracks, corrosion and general condition. Use dye penetrant as required for definitive inspection results.			
2. Visually inspect the segmented honeycomb floor support angles at the outboard edges of the divan seat floor and forward baggage floor for fatigue cracks, corrosion, fastener security, and general condition.			
3. Visually inspect upper forward corner and upper aft corner of entry door framing members at intersection of frame/skin splice along stringer 6L. Inspect for evidence of fatigue cracks, corrosion, fastener security, and general condition. Accomplish X-ray inspections in accordance with Section 52-10-01 of NDI Manual. Film placement at positions CD 8 and CD 10.			

3000-LANDING INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
4. Inspect crown circumferential splice just forward of Frame 22 for evidence of fatigue cracks, working rivets, corrosion, and general condition. Confirm any suspect condition with supporting x-rays. If required, conduct x-ray inspection in accordance with Sections 53-10-01 and 53-12-01 of NDI Manual.			
5. Inspect crown skin circumferential splices at frames 15 and 19 for evidence of fatigue cracks, working rivets, corrosion, and general condition. Confirm any suspect condition with supporting x-rays. If required, conduct x-ray inspection in accordance with Sections 53-10-01 and 53-12-01 of NDI Manual.			

6000-LANDING INSPECTION (A/C 25-061, 25-070 Thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

MECH.	DATE	INSP.

NOTE: ° Allowable tolerance for this inspection is +20 flight hours. Applicable items from Replacement Schedule have no tolerance above the value listed.

° If the number of landings is undetermined, it is recommended a flight hour/landing ratio of 1:1 be used.

A. General

1. Major assembly removals include:
 Main landing gear and actuator from wing.
 Nose landing gear and actuator from fuselage.
 Disassembly of main and nose landing gear.

B. Landing Gear

1. Remove main and nose gear (including actuators) from aircraft. (Refer to Chapter 32.).....

2. Deflate struts and stroke from fully extended to fully compressed positions. Note binding tendencies during stroking, particularly near the fully compressed position.

6000-LANDING INSPECTION (A/C 25-061, 25-070 Thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
3. Completely disassemble main and nose landing gear. (Refer to Chapter 32.) Conduct visual, dye penetrant and Magnaflux inspection of all component as appropriate. Determine extent of wear by making dimensional checks. (Refer to Chapter 32.)			
4. Completely disassemble main and nose gear actuators. (Refer to Chapter 32.) Conduct visual, dye penetrant, and Magnaflux inspection of all components as appropriate. Determine extent of wear by making required dimensional checks.			
5. Clean and dye penetrant upper cylinder as shown in 1200 hour inspection. This is to be repeated at 1200 flight hour intervals after the initial inspection.			
6. Inspect inboard attachment of main gear actuator for security, looseness, overload indications, and fatigue cracks. The pillar attachments to spars 7 and 8 are to be specifically inspected for discrepant conditions. Pillar removal is to be accomplished to facilitate definitive inspection.			

PRE-INSPECTION CHECKLIST FOR 7200-HOUR/12-YEAR AND 6000-LANDING/12-YEAR INSPECTIONS

This checklist is intended to be used as a guide for preparing the aircraft for a 7200-Hour/12-Year or 6000-Landing/12-Year inspection. It is not an absolute checklist, but should be of help when preparing the aircraft for a NDI inspection.

1. **GENERAL**
 - A. All upholstery removed.
 - B. All sound deadening insulation (except foam) removed.
 - C. Fuselage clear of loose items.
 - D. All floor panels removed.

2. **WING**
 - A. Aircraft jacked to proper height and leveled.
 - B. Upper surface of wing blown clean.
 - C. Oblong or kidney shaped access panel just aft of wing spar 1 cover plates removed, but accessible.
 - D. Flight control cables between keel beams loosened and pulled together in center.
 - E. Lower surface clean for Eddy Current inspection.
 - F. Fuel pumps and major plumbing removed from lower wing.

3. **PYLONS**
 - A. Upper and lower surfaces clean.

 NOTE: Engine nacelles may or may not be removed (removal is preferred).

4. **WINDSHIELD**
 - A. Control column assembly removed.

 NOTE: If it is not desirable to remove the control column, it must be loosened so it lays down. If this approach is used, wrap the control wheels for protection and two views of WR2 and WL2 may be required for coverage.

 - B. Upper portion of control throttle console removed.
 - C. Glareshield removed.
 - D. Compass removed from fuselage.
 - E. Main pilot and copilot instrument panels removed.
 - F. Glareshield frame must allow insertion of film between it and inner skin (WL1 and WR1).
 - G. Inside and outside surfaces of windshield clean for Larascope.

5. **STRINGER 14**
 - A. Cleared of wiring, tubing, etc. (except foam) from Frame 5 to Frame 15.

6. **STRINGER 6**
 A. Cleared of wiring, etc. (except foam) from Frame 9 to Frame 22 (or Frame 18), as applicable.

7. **CABIN DOOR**
 A. All upholstery trim removed.
 B. Foam removed from Stringer 14 forward, down, across bottom and up to Stringer 14 aft 4 inches wide and vacuumed out.
 C. Both upper and lower doors to be operable for opening and closing.

8. **CABIN WINDOWS**
 A. All upholstery trim removed.
 B. All hanging wires tucked away.

9. **EMERGENCY EXIT**
 A. Installed in aircraft.
 B. All upholstery trim removed from around window.

10. **FRAMES 9, 13, 15, 19 AND 22**
 A. Center upholstery panel removed.

11. **FRAME 22**
 A. Air conditioner and as many other items as possible removed.

12. **AFT PRESSURE BULKHEAD (6000 LANDING INSPECTION ONLY)**
 A. Area cleared of debris for access.
 B. Fuel removed from bladder.
 C. Carpet, black boxes, etc., removed for clear shot.
 D. Fuel cell must be prepared for entry from the tailcone.

 NOTE: Care shall be taken when entering and exiting to avoid damage to any item, especially the cables - DO NOT CRIMP.

13. **SPECIAL INSPECTION**
 A. Visually inspect both lower forward and aft corners of lower door for cracks in flanges. Record findings on back of work order.
 B. Visually inspect fuselage paint for excessive cracking.

 NOTE: Advise customer if excessive stripping may be required.

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.

NOTE: ° Tolerance for this inspection is +20 landings or +2 weeks, whichever is applicable. Applicable items from Replacement Schedule have no tolerance above values listed.

° If the number of landings is undetermined, it is recommended a flight hour/landing ratio of 1:1 be used.

A. General

1. Inspections to be accomplished at the landings or calendar time indicated, whichever occurs first.

2. Major removals include:

Wing-to-fuselage fairings (upper and lower).
Leading edge assemblies from wing.
Tip tank assemblies from wing.
Tip rib plates from wing.
Lower surface access doors from wing.
Moveable surfaces from wing (flaps, ailerons, and spoilers).
Elevators from horizontal stabilizer.
Rudder from vertical stabilizer.
Stabilizer actuator.
Main landing gear and actuator from wing.
Nose landing gear and actuator from fuselage.
Disassembly of main and nose landing gear.
Interior and soundproofing.
Fuel line cluster - lower wing - ejector and standby pump. (Refer to Chapter 28, Parts Catalog.)

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
B. Wing (Attached to Fuselage)			
1. With wing-to-fuselage fairing removed, clean and visually inspect all eight wing-to-fuselage fittings (four per side). Using a 10X magnifying glass, adequate lighting, and mirror, inspect fittings and support structures for fatigue cracks, deformation, corrosion, marks, scratches, fastener working, and general security.			
2. With leading edge assemblies removed, inspect forward side of spar No. 1 for evidence of fatigue cracks, overheat (discolored primer), general corrosion, loose or missing fasteners, filliform corrosion, and general condition.			
3. With tip tank assemblies and tip rib plates removed, inspect wing/tip tank for corrosion, loose or missing fasteners, fatigue cracks, and general security. From the open tip rib position, inspect the exposed outboard wing structure for fatigue cracks, fastener damage, and corrosion. Check sealer around rivet butts and fay sealed joints for evidence of corrosion between sealer and metal structure.			
4. With lower surface access doors removed, use adequate lighting and mirror and conduct a general visual inspection of the interior wing structure for evidence of fatigue cracks, loose or missing fasteners, bacterial growth, filliform and general corrosion. A more comprehensive inspection should be accomlished locally if external fuel stains are noted in the wet section.			
5. Clean and conduct a general external and internal visual inspection of the wing center section paying particular attention to the lower skin at the fuel pump locations and the splice details at BL 0.0, as accessible. Inspect for evidence of fatigue cracks, corrosion, deformation, and fastener/joint condition.			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
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DESCRIPTION	MECH.	DATE	INSP.
B. Wing (Attached to Fuselage) (Cont'd.) 6. Visually inspect internal and external areas of wing structure adjacent to landing gear rib. If evidence of a hard landing exists, conduct Hard Landing inspection previously noted.			
7. Conduct an x-ray inspection of the upper wing structure inboard of the wing-to-fuselage fittings and forward of Spar 5. Inspect for corrosion, fatigue cracks, loose or missing fasteners, and general condition. X-ray inspection to be accomplished per the requirements of Section 57-12-01 of the NDI Manual. If corrosion is found, wing removal from fuselage may be required to permit a more extensive inspection and subsequent correction.			
8. Conduct an eddy current inspection per Part 3 of the NDI Manual for the following inboard wing structural areas: a. Surface of accessible areas of lower doubler from BL 0.0 to outboard end of doubler along spars 4, 5, and 7. b. Skin adjacent to fastener rows along lower surface for spars 4, 5, and 7 from outboard end of doubler to WS 60.0. c. Skin adjacent to lower surface access plate fasteners from BL 0.0 to landing gear rib (WS 53.0).....			
C. Flight Controls 1. With all moveable flight control surfaces removed (flaps, ailerons, rudder, elevators, and spoilers), inspect all bearings, bushings, and rollers for security, roughness, seizure, rust or corrosion, and wear. Preventive maintenance replacement at this time is recommended. Applies to parent structure elements as well as those on the moveable surfaces.			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
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DESCRIPTION	MECH.	DATE	INSP.
C. Flight Controls (Cont'd.) 2. Visually inspect all moveable surface assemblies for corrosion, fatigue cracks, wear, evidence of interference, and general condition. Inspect all balance weight locations for evidence of vibration, fastener looseness, and general security. On the aileron and rudder assemblies, inspect the trim tab installations for general condition and security, noting any hinge or push rod looseness that may contribute to excessive tab "free play." 3. Inspect the bearings of all control system bellcranks, sectors, the control column, and two control wheels for wear, roughness, security, general condition, and ease of operation. 4. Remove stabilizer actuator, disassemble, and inspect for wear, corrosion, and general condition. Inspect upper and lower attachment structure for fatigue cracks, distortion, wear, corrosion, and general security. Prior to reinstallation, comply with relubrication and bolt replacement defined by the Replacement and Overhaul schedule. In order to accomplish this requirement, the performing facility must possess the required Repair Manuals and Special Test Equipment. (Refer to OVERHAUL SCHEDULE.)			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
D. Fuselage			
1. Windshield (Installed in Fuselage)			
Clean exterior surface of windshield in accordance with Chapter 12. Using prism techniques described in Part 4 of the NDI Manual, inspect the fastener area of the windshield installation. This inspection is capable of visually assessing the condition of the stretched acrylic windshield underneath the outer retainer along the periphery and center post. Inspect for cracks normal to windshield surface, particularly adjacent to fastener locations. Also inspect for cracks or fracture planes parallel to windshield surface that may emanate from trimmed edge or fastener hole locations.			
Conduct a general visual inspection of the accessible areas of the windshield for delamination, chipping, crazing, cracks, gouges, heat damage in the external defog area, and general condition.			
Conduct an x-ray inspection of the windshield supporting structure as indicated by Section 56-10-01 of the NDI Manual. Foam or other removals not required unless x-ray indicates possible cracks.			
1A. Windshield (Removed from Fuselage)			
If prism inspection equipment is not available, visually inspect the windshield as follows:			
Remove both the R & L windshield assemblies from the aircraft. (Refer to Chapter 56.) Inspect stretched acrylic for delamination, chipping, crazing, cracks (particularly at fastener locations), heat damage, and general condition. Particular attention should be given the inner surface of the windshield opposite the retainer. Clean sealant and dirt from the trimmed edge of			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
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DESCRIPTION	MECH.	DATE	INSP.
the windshield and, using good lighting, inspect for fracture lines/planes along the trimmed surface. View windshield from inner edge (opposite retainer) and inspect for delamination extending away from the trimmed edge and toward the fastener row. Conduct a visual inspection of the accessible structure for security, general condition, and fatigue cracks. X-ray windshield support structure. Foam removal not required unless X-ray indicates possible cracks. (Refer to Chapter 56.)			
2. Forward and aft pressure bulkheads for cracks, local deformation, and fastener condition. Remove internal foam at aft bulkhead for 12 to 15 inches above baggage floor on left and right sides. Replace foam and repair any foam damage that may be an air passage to "cold" structure. On forward pressure bulkhead, inspect the top cap at windshield intersection for security, fatigue cracks, and general condition.			
3. For Model 25D aircraft, gain access to aft bulkhead of fuselage fuel cell and remove access plates. Insert x-ray film and affix to forward bladder boundary with double-back tape or other suitable means. Using procedure outlined by Section 53-14-01 of the NDI Manual, inspect the double wall, beam-stiffened aft pressure bulkhead (Frame 22) for evidence of fatigue cracks or corrosion, paying particular attention to the aft wall and aft (tension) caps of lateral stiffener beams.			
4. For Model 25F aircraft, gain access to and remove honeycomb web plate at aft pressure bulkhead location (Frame 18). Visually inspect bulkhead for evidence of fatigue cracks, corrosion, or other damage. With web plate removed, visually inspect supporting structure along floor, frame periphery and splitter for fatigue cracks, fastener security, corrosion, or other degradation..			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
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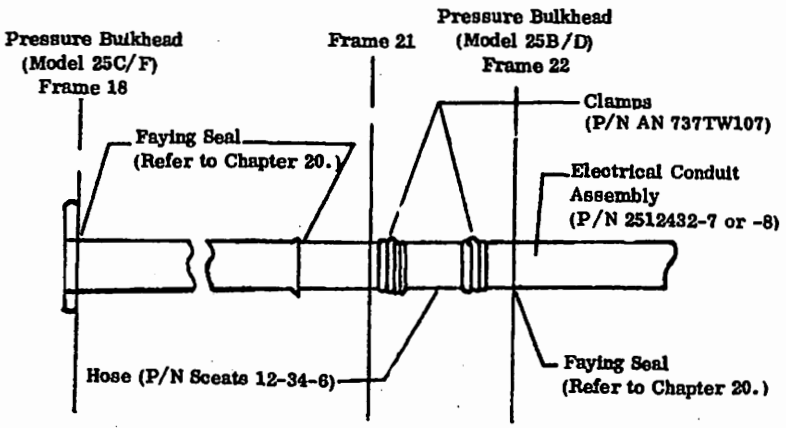
DESCRIPTION	MECH.	DATE	INSP.
5. Baggage Floor/Over Wing Area - Remove foam from accessible areas of aft side of Frame 15 (lower portion) and from lower caps of lateral floor beams between frames 19 and 22. Inspect entire area for corrosion, fatigue cracks, security, and general condition. Inspect the lateral floor beam lower caps for fatigue cracks at fastener holes. Dye penetrant lower caps as required for conclusive results. After completion of inspection and repair as required, clean and reprime. Replace foam and seal coat as required.			
NOTE: If inspection of accessible areas indicate presence of extensive corrosion, wing removal from fuselage may be required to permit more thorough inspection and correction.			
6. Upper and lower cabin door hinges and doorway framing members; visually inspect accessible structure for security, general condition, excessive wear or looseness, and fatigue cracks. Remove foam from a 4 inch band around the lower portion of the doorway from stringer 14 on the aft side of the door to stringer 14 on the forward side of the door. X-ray upper and lower hinges, attaching structure, and framing members. Dye penetrant inspect as required to confirm adverse inspection findings. After inspection is complete, repair and reprime as required. Repair/replace foam as necessary and reinstall secondary inner skin. (Refer to Section 52-10-01 of the NDI Manual for x-ray inspection.)			
7. Below Floorboard Inspection - Remove foam from each centerline bay (between keel beams) that serves as a fluid sump. These bays occur just forward of Frame 15, at each lower centerline antenna installation and/or at each drain hole location. Inspect for corrosion, general condition, and fatigue cracks. After inspection, reprime, replace foam and seal coat. For the			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
remainder of the under floor region, repair all foam and seal coat cracks and punctures that may be an air passage to "cold" structure.			
8. General Foam Insulation Condition - Inspect all remaining internally foamed areas of the pressure cabin. If the foam appears to have been punctured to the skin, remove locally and inspect for corrosion and general condition. Inspect entire external surface of pressure vessel for possible "leaky" rivets. Remove foam internally at these locations and inspect for corrosion. Replace removed foam and repair any foam damage in the remainder of the pressure cabin that may be an air passage to "cold" structure.			
9. Underwing Keel Beam - Inspect end fittings for security, general condition, and fatigue cracks. Also inspect attaching fittings (forward of frame 15 and aft of frame 22) for similar effects.			
10. Cabin Windows and Framing Members (including aft emergency exit window) - Visually inspect accessible structure for security, general condition, and fatigue cracks. X-ray windows and support structure. Foam removal not required unless x-ray indicates possible crack. (Refer to Section 56-20-01 and 52-21-01 of the NDI Manual for x-ray inspection.)			
11. Pylon - Inspect pylon structure for security, general condition, corrosion, and fatigue cracks. X-ray trailing edge portion of pylon, which is filled with foam, to detect hidden fatigue cracks or corrosion. Skin removal not required unless rework indicated. (Refer to Section 54-10-01 of the NDI Manual for x-ray inspection.)			

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(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
12. Clean and visually inspect with the aid of 10X magnification, flashlight, and mirror, all eight (8) wing-to-fuselage attachment fittings. Inspect fittings and support structure for cracks, corrosion, marks, scratches, fastener working, and general security.			
13. Longitudinal and Circumferential Skin Splices (Pressure Cabin) - Conduct a visual inspection of the longitudinal skin splices along the main "T" stringers. X-ray these longitudinal splices from frame aft to frame 22. Conduct a visual external inspection of the circumferential skin splices across the top of the aircraft from stringer 6L to 6R. Refer to NDI Manual, Section 53-10-01,			

DESCRIPTION	MECH.	DATE	INSP.
53-11-01, 53-12-01, and 53-13-01 for x-ray inspection. Refer to SPECIAL PRESSURE CABIN SKIN THICKNESS MEASUREMENT procedures.			
14. Gain access to upper door handle mechanism. Disassemble mechanism and inspect bolt holes common to handle shaft and rod control assembly. If holes are excessively worn in shaft or rod control assembly, replace as necessary.			
15. Gain access to electrical conduit at WL 30, LBL 20 and RBL 20 at frames 21 and 22. Inspect the integrity of the faying seals forward of frame 2 and at the pressure bulkhead. Inspect hose for cracks or deterioration. Inspect clamps for deterioration and security of attachment.			
			
E. Empennage			
1. Horizontal stabilizer (Attached to Vertical Fin) With alternating up and down loads applied to stabilizer tips, observe actuator and hinge pin fitting for evidence of wear, free play, and general security. Pay particular attention to the relative movement that may be present between the hinge pin and the horizontal stabilizer pivot fitting bearing/bushing installation.			

6000-LANDING/12-YEAR INSPECTION (A/C 25-230 and Subsequent)
(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
2. Conduct a general visual inspection of the horizontal stabilizer assembly including upper and lower skin splices at BL 4.5 rib, accessible portions of front and rear spar installations, elevator hinge support locations, upper actuator attachment structure, and gusset installation between L & R BL 4.5 rib installations just forward of pivot fitting cut-out. With lower surface access plates removed and using a flashlight and mirror, conduct an internal inspection of the BL 4.5 rib installations, paying particular attention to the rib caps and webs, adjacent spar caps and webs, and joggled stringer attachments. Inspect for general appearance, evidence of overload (stringer buckling internally and/or rivet tipping at BL 4.5 skin splice station externally), fatigue cracks, loose or working fasteners, and corrosion (particularly exposed areas of front and rear spar caps). Visually inspect pivot fitting installation using proper lighting and 10X magnification. Inspect for security, wear, corrosion, and fatigue cracks. ..			
3. Vertical Stabilizer (Attached to Fuselage) - Conduct a visual inspection of the vertical stabilizer above the fuselage for evidence of permanent deformation, corrosion, loose or working fasteners, fatigue cracks, and general condition. Remove all access panels, and using flashlight and mirror, inspect internal rib and spar structure for corrosion and fatigue cracks.			
Visually inspect upper fin structure, particularly in pivot fitting and lower stabilizer actuator attachment area. Use 10X magnification and proper lighting to aid visual inspection. Dye penetrant inspect accessible areas of pivot fitting. Inspect for fastener security, general condition, wear, fatigue cracks, and corrosion of the fittings and attaching structure.			

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(Aircraft Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
F. Fuel			
1. Inspect fuel supply line check valve orifices for condition and cleanliness. (Refer to Chapter 28.)			
G. Landing Gear			
1. Remove main and nose gear (including actuators) from aircraft. (Refer to Chapter 32.)			
2. Deflate struts and stroke from fully extended to fully compressed positions. Note binding tendencies during stroking, particularly near the fully compressed position.			
3. Completely disassemble main and nose landing gear. (Refer to Chapter 32.) Conduct visual, dye penetrant and Magnaflux inspection of all components as appropriate. Determine extent of wear by making dimensional checks. (Refer to Chapter 32.)			
4. Complete disassemble main and nose gear actuators. (Refer to Chapter 32.) Conduct visual, dye penetrant, and Magnaflux inspection of all components as appropriate. Determine extent of wear by making required dimensional checks.			
5. Clean and dye penetrant upper cylinder as shown in 1200 hour inspection. This is to be repeated at 1200 flight hour intervals after the initial inspection.			
6. Inspect inboard attachment of main gear actuator for security, looseness, overload indications, and fatigue cracks. The pillar attachments to spars 7 and 8 are to be specifically inspected for discrepant conditions. Pillar removal is to be accomplished to facilitate definitive inspection.			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 Thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.
A. General			
NOTE: If inspection is because of flight hours, all lower flight hour inspections must be accomplished. If the number of landings is undetermined, it is recommended a flight hour/landing ratio of 1:1 be used. Tolerance for this inspection is +20 flight hours or +2 weeks, whichever is applicable. The 20 flight hour or two (2) week tolerance of the 7200-hour/12-year inspection <u>does not</u> apply to the items referenced in Replacement Schedule.			
1. Inspections to be accomplished at the flight hours or calendar time indicated, whichever occurs first.			
2. Major removals include: Wing-to-fuselage fairings (upper and lower). Leading edge assemblies from wing. Tip tank assemblies from wing. Tip rib plates from wing. Lower surface access doors from wing. Moveable surfaces from wing (flaps, ailerons, and spoilers). Elevators from horizontal stabilizer. Rudder from vertical stabilizer. Stabilizer actuator. Interior and soundproofing. Fuel line cluster - lower wing - ejector and standby pump. (Refer to chapter 28, Parts Catalog.)			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
B. Wing (Attached to Fuselage)			
1. With wing-to-fuselage fairing removed, clean and visually inspect all eight wing-to-fuselage fittings (four per side). Using a 10X magnifying glass, adequate lighting, and mirror, inspect fittings and support structures for fatigue cracks, deformation, corrosion, marks, scratches, fastener working, and general security.			
2. With leading edge assemblies removed, inspect forward side of spar No. 1 for evidence of fatigue cracks, overheat (discolored primer), general corrosion, loose or missing fasteners, filliform corrosion, and general condition.			
3. With tip tank assemblies and tip rib plates removed, inspect wing/tip tank for corrosion, loose or missing fasteners, fatigue cracks, and general security. From the open tip rib position, inspect the exposed outboard wing structure for fatigue cracks, fastener damage, and corrosion. Check sealer around rivet butts and fay sealed joints for evidence of corrosion between sealer and metal structure.			
4. With lower surface access doors removed, use adequate lighting and mirror and conduct a general visual inspection of the interior wing structure for evidence of fatigue cracks, loose or missing fasteners, bacterial growth, filliform and general corrosion. A more comprehensive inspection should be accomplished locally if external fuel stains are noted in the wet section..			
5. Clean and conduct a general external and internal visual inspection of the wing center section paying particular attention to the lower skin at the fuel pump locations and the splice details at B.L. 0.0, as accessible. Inspect for evidence of fatigue cracks, corrosion, deformation, and fastener/joint condition.			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
6. Visually inspect internal and external areas of wing structure adjacent to landing gear rib. If evidence of a hard landing exists, conduct Hard Landing Inspection previously noted.			
7. Conduct an x-ray inspection of the upper wing structure inboard of the wing-to-fuselage fittings and forward of Spar 5. Inspect for corrosion, fatigue cracks, loose or missing fasteners, and general condition. X-ray inspection to be accomplished per the requirments of Section 57-12-01 of the NDI Manual. If corrosion is found, wing removal from fuselage may be required to permit a more extensive inspection and subsequent correction.			
8. Conduct an eddy current inspection per Part 3 of the NDI Manual for the following inboard wing structural areas: a. Surface of accessible areas of lower doubler from B.L. 0.0 to outboard end of doubler along spars 4, 5, & 7. b. Skin adjacent to fastener rows along lower surface for spars 4, 5, and 7 from outboard end of doubler to W.S. 60.0. c. Skin adjacent to lower surface access plate fasteners from B.L. 0.0 to landing gear rib (W.S. 53.0).			
C. Flight Controls			
1. With all moveable flight control surfaces removed, (flaps, ailerons, rudder, elevators, and spoilers), inspect all bearings, bushings, and rollers for security, roughness, seizure, rust or corrosion, and wear. Preventive maintenance replacement at this time is recommended. Applies to parent structure element as well as those on the moveable surfaces.			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
2. Visually inspect all moveable surface assemblies for corrosion, fatigue cracks, wear, evidence of interference, and general condition. Inspect all balance weight locations for evidence of vibration, fastener looseness, and general security. On the aileron and rudder assemblies, inspect the trim tab installations for general condition and security, noting any hinge or push rod looseness that may contribute to excessive tab "free play".			
3. Inspect the bearings of all control system bellcranks, sectors, the control column, and two control wheels for wear, roughness, security, general condition, and ease of operation.			
4. Remove stabilizer actuator, disassemble, and inspect for wear, corrosion, and general condition. Inspect upper and lower attachment structure for fatigue cracks, distortion, wear, corrosion, and general security. Prior to reinstallation, comply with relubrication and bolt replacement defined by the Replacement and Overhaul schedule. In order to accomplish this requirement, the performing facility must possess the required Repair Manuals and Special Test Equipment. (Refer to OVERHAUL SCHEDULE.)			
D. Fuselage			
1. Windshield (Installed in Fuselage)			
Clean exterior surface of windshield in accordance with Chapter 12. Using prism techniques in Part 4 of the NDI Manual, inspect the fastener area of the windshield installation. This inspection is capable of visually assessing the condition of the stretched acrylic windshield underneath the outer retainer along the periphery and center post. Inspect for cracks normal to windshield surface, particularly adjacent to fastener locations. Also inspect for cracks or fracture planes parallel to windshield surface			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
that may emanate from trimmed edge or fastener hole locations.			
Conduct a general visual inspection of the accessible areas of the windshield for delamination, chipping, crazing, cracks, gouges, heat damage in the external defog area, and general condition.			
Conduct an x-ray inspection of the windshield supporting structure as indicated by Section 56-10-01 of the NDI Manual. Foam or other removals not required unless x-ray indicates possible cracks.			
1A. Windshield (Removed From Fuselage) If prism inspection equipment is not available, visually inspect the windshield as follows: Remove both the R & L windshield assemblies from the aircraft. (Refer to Chapter 56.) Inspect stretched acrylic for delamination, chipping, crazing, cracks (particularly at fastener locations), heat damage, and general condition. Particular attention should be given the inner surface of the windshield opposite the retainer. Clean sealant and dirt from the trimmed edge of the windshield and, using good lighting, inspect for fracture lines/planes along the trimmed surface. View windshield from inner edge (opposite retainer) and inspect for delamination extending away from the trimmed edge and toward the fastener row. Conduct a visual inspection of the accessible structure for security, general condition, and fatigue cracks. X-ray windshield support structure. Foam removal not required unless X-ray indicates possible cracks. (Refer to Chapter 56.)			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
2. Forward and aft pressure bulkheads for cracks, local deformation, and fastener condition. Remove internal foam at aft bulkhead for 12 to 15 inches above baggage floor on left and right sides. Replace foam and repair any foam damage that may be an air passage to "cold" structure. On forward pressure bulkhead, inspect the top cap at windshield intersection for security, fatigue cracks, and general condition.			
3. Baggage Floor/Over Wing Area - Remove foam from accessible areas of aft side of Frame 15 (lower portion) and from lower caps of lateral floor beams between frames 19 and 22. Inspect entire area for corrosion, fatigue cracks, security, and general condition. Inspect the lateral floor beam lower caps for fatigue cracks at fastener holes. Dye penetrant lower caps as required for conclusive results. After completion of inspection and repair as required, clean and reprime. Replace foam and seal coat as required.			
NOTE: If inspection of accessible areas indicates presence of extensive corrosion, wing removal from fuselage may be required to permit more thorough inspection and correction.			
4. Upper and lower cabin door hinges and doorway framing members; visually inspect accessible structure for security, general condition, excessive wear or looseness, and fatigue cracks. Remove foam from a 4 inch band around the lower portion of the doorway from stringer 14 on the aft side of the door to stringer 14 on the forward side of the door. X-ray upper and lower hinges, attaching structure, and framing members. Dye penetrant inspect as required to confirm adverse inspection findings. After inspection is complete, repair and reprime as required. Repair/replace foam as necessary and reinstall secondary inner skin. (Refer to Section 52-10-01 of the NDI Manual for x-ray inspection.)			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
5. Below Floorboard Inspection - Remove foam from each lower centerline bay (between keel beams) that serves as a fluid sump. These bays occur just forward of Frame 15, at each lower centerline antenna installation and/or at each drain hole location. After inspection, reprime, replace foam, and seal coat. For the remainder of the under floor region, repair all foam and seal coat cracks and punctures that may be an air passage to "cold" structure.			
6. General Foam Insulation Condition - Inspect all remaining internally foamed areas of the pressure cabin. If the foam appears to have been punctured to the skin, remove locally and inspect for corrosion and general condition. Inspect entire external surface of pressure vessel for possible "leaky" rivets. Remove foam internally at these locations and inspect for corrosion. Replace removed foam and repair any foam damage in the remainder of the pressure cabin that may be an air passage to "cold" structure.			
7. Underwing Keel Beam - Inspect end fittings for security, general condition, and fatigue cracks. Also inspect attaching fittings (forward of frame 15 and aft of frame 22) for similar effects.			
8. Cabin Windows and Framing Members (including aft emergency exit window and framing members) - Visually inspect accessible structure for security, general condition, and fatigue cracks. X-ray windows and support structure. Foam removal not required unless x-ray indicates possible crack. (Refer to Section 56-20-01 and 52-21-01 of the NDI Manual for x-ray inspection.)			
9. Pylon - Inspect pylon structure for security, general condition, corrosion, and fatigue cracks. X-ray trailing edge portion of pylon, which is filled with foam, to detect hidden fatigue cracks or corrosion. Skin removal not required unless rework indicated. (Refer to			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
Section 54-10-01 of the NDI Manual for x-ray inspection.)			
10. Clean and visually inspect with the aid of 10X magnification, flashlight, and mirror, all eight (8) wing-to-fuselage attachment fittings. Inspect fittings and support structure for cracks, corrosion, marks, scratches, fastener working, and general security.			
11. Longitudinal and Circumferential Skin Splices (Pressure Cabin) - Conduct a visual external inspection of the longitudinal skin splices along the main "T" stringers. X-ray these longitudinal splices from frame 5 aft to frame 22. Conduct a visual external inspection of the circumferential skin splices across the top of the aircraft from stringer 6L to 6R. Refer to NDI Manual, Section 53-10-01, 53-11-01, 53-12-01, and 53-13-01 for x-ray inspection. Refer to SPECIAL PRESSURE CABIN SKIN THICKNESS MEASUREMENT procedures.			
12. Gain access to upper door handle mechanism. Disassemble mechanism and inspect bolt holes common to handle shaft and rod control assembly. If holes are excessively worn in shaft or rod control assembly, replace as necessary.			
13. On Model 25B and 25D aircraft, gain access to electrical conduit at W.L. 30, LBL 20 and RBL 20 at frames 21 and 22. Inspect the integrity of the faying seals forward of frame 21 and at the pressure bulkhead. Inspect hose for cracks or deterioration. Inspect clamps for deterioration and security of attachment.			
14. Perform check of cabin skin thickness measurement in accordance with procedures outlined in SPECIAL CABIN THICKNESS MEASUREMENT, this section.			

7200-HOUR/12-YEAR INSPECTION (A/C 25-061, 25-070 thru 25-229)
(Aircraft Not Certified For 51,000-Ft. Operation)

DESCRIPTION	MECH.	DATE	INSP.
E. Empennage 1. Horizontal Stabilizer (Attached to Vertical Fin) With alternating up and down loads applied to stabilizer tips, observe actuator and hinge pin fitting areas for evidence of wear, free play, and general security. Pay particular attention to the relative movement that may be present between the hinge pin and the horizontal stabilizer pivot fitting bearing/bushing installation.			
2. Conduct a general visual inspection of the horizontal stabilizer assembly including upper and lower skin splices at BL 4.5 rib, accessible portions of front and rear spar installations, elevator hinge support locations, upper actuator attachment structure, and gusset installation between L & R BL 4.5 rib installations just forward of pivot fitting cut-out. With lower surface access plates removed and using a flashlight and mirror, conduct an internal inspection of the BL 4.5 rib installations, paying particular attention to the rib caps and webs, adjacent spar caps and webs, and joggled stringer attachments. Inspect for general appearance, evidence of overload (stringer buckling internally and/or rivet tipping at BL 4.5 skin splice station externally), fatigue cracks, loose or working fasteners, and corrosion (particularly exposed areas of front and rear spar caps). Visually inspect pivot fitting installation using proper lighting and 10X magnification. Inspect for security, wear, corrosion, and fatigue cracks. ..			
3. Vertical Stabilizer (Attached to Fuselage) - Conduct a visual inspection of the vertical stabilizer above the fuselage for evidence of permanent deformation, corrosion, loose or working fasteners, fatigue cracks, and general condition. Remove all access panels, and using flashlight and mirror, inspect internal rib and spar structure for corrosion and fatigue cracks..			

DESCRIPTION	MECH.	DATE	INSP.
4. Visually inspect upper fin structure, particularly in pivot fitting and lower stabilizer actuator attachment area. Use 10X magnification and proper lighting to aid visual inspection. Dye penetrant inspect accessible areas of pivot fitting. Inspect for fastener security, general condition, wear, fatigue cracks, and corrosion of the fittings and attaching structure.			
F. Fuel			
1. Inspect fuel supply line check valve orifices for condition and cleanliness. (Refer to Chapter 28.)			

PRE-INSPECTION CHECKLIST FOR 12000-HOUR INSPECTIONS

This checklist is intended to be used as a guide for preparing the aircraft for a 12000-Hour inspection. it is not an absolute checklist, but should be of help when preparing the aircraft for a NDI inspection.

1. **WING**
 - A. Fuel pumps, etc., removed.
 - B. All wiring properly bundled and placed.
 - C. Upper and lower outside surfaces clean.
 - D. Upper surface of lower skin clean (dry bays).
 - E. Oblong or kidney shaped access panel just aft of wing panel removed, but accessible.
 - F. All cover plates removed inboard of WS 92 for Eddy Current Inspection.
 - G. Wing level and accessible.
 - H. Adequate access to spars 5 and 7 and applicable cover plates removed for Eddy Current Inspection.

2. **ELEVATORS**
 - A. Bellcranks removed.

3. **HORIZONTAL STABILIZER**
 - A. Removed from aircraft, positioned horizontally at operable height, level and accessible.

4. **VERTICAL STABILIZER**
 - A. Presence of Dorne-Margolin antenna for applicability of x-ray.
 - B. Accessibility of upper surfaces for Eddy Current inspection.

5. **FUSELAGE**
 - A. Accessibility to fuselage-to-wing fittings.

6. **SPECIAL INSPECTIONS**
 - A. Visually inspect elevators along spar and trailing edge for signs of corrosion and record on back of work order.
 - B. Visually inspect horizontal stabilizer along forward and aft spars and ribs 4.5 for signs of corrosion and record on back of work order.

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

MODEL	SERIAL NO.	REGISTRATION NO.
Into Work Date		A/C Due Out Date
Description		Airframe Total Time

	MECH.	DATE	INSP.

NOTE: Tolerance for this inspection is +20 flight hours for the initial inspection and +20 flight hours for the subsequent inspections. Applicable items from Replacement Schedule have no tolerance above the values listed.

1. Initial inspection to be accomplished at flight hours indicated. Subsequent inspections to be accomplished at 6000 flight hour intervals.

2. Major assembly removals include:

 Under wing keel beam from fuselage.
 Wing from fuselage.
 Lower access plates from wing (BL 0.0 to WS 92.0).
 Engine and engine mounts from fuselage.
 Moveable surfaces from wing (flaps, ailerons, and spoilers).
 Rudder from vertical stabilizer.
 Elevators from horizontal stabilizer.
 Stabilizer actuator.
 Horizontal stabilizer from vertical fin.

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
A. Wing (Removed from Fuselage)			
1. Remove lower surface access plates from WS 92 inboard to BL 0.0 including fuel pumps at WS 6.0 and 11.0. Visually inspect the periphery of these cutouts for fatigue cracks, corrosion, and general condition. Conduct eddy current inspections adjacent to the peripheral fasteners around these cut-out areas per the requirements of Part 3 of the NDI Manual.			
2. Clean and dye penetrant inspect all eight wing-to-fuselage fittings (four per side). Using a 10X magnifying glass and adequate lighting, visually inspect fittings and support structure for fatigue cracks, deformation, corrosion, marks, scratches, fastener working, and general security. Conduct eddy current inspection of lug area, per Part 3 of the NDI Manual.			
3. Conduct an x-ray inspection of the upper and lower wing structure in the centerline doubler area per the requirements of Section 57-10-01 and 57-11-01 of the NDI Manual. Inspect for fatigue cracks, corrosion, loose or missing fasteners, and general security.			
4. Clean the lower centerline splice plate (Spar 2 to 5 and 7 to 8) adjacent to BL 0.0 rib cap. Visually inspect this area for corrosion, fatigue cracks, working fasteners, and general security. Conduct an eddy current inspection of the splice plate along the centerline fastener rows per the requirements of Part 3 of the NDI Manual.			
5. Conduct a visual and eddy current inspection of the following lower wing structural areas: a. Centerline doubler along spars 3, 4, 5, 7, and 8. b. Skin adjacent to fastener rows along lower surface of spars 3, 4, 5, 6, 7, and 8 from outboard end of doubler to WS 92.0.			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
c. With spar web access plates removed from spars 5 and 7 in wheel well area, inspect around periphery of cut-out, particularly adjacent to fastener holes.			
d. Structure adjacent to fastener holes common to vertical leg of lower cap and web of spars 5 and 7 from BL 0.0 to WS 53, as accessible. ...			
e. Remove lower surface fasteners common to landing gear trunnion fittings and lower skin/spar caps (Spar 5) and inspect adjacent structure..			
Eddy current inspections to be accomplished per Part 3 of the NDI Manual. Visually inspect for fatigue cracks, corrosion, loose or working fasteners, and general security.			
B. Fuselage (Wing Removed)			
1. Clean and visually inspect all eight wing-to-fuselage fittings (four per side). Using 10X magnification, visually inspect fittings and support structure for fatigue cracks, deformation, corrosion, marks, scratches, fastener working, and general security. Dye penetrant lug area of fittings and inspect for fatigue cracks. Conduct eddy current inspection of lug areas per Part 3 of the NDI Manual for fatigue cracks.			
2. Baggage Floor/Over Wing Area - Remove foam from aft side of frame 15 (lower portion) and from lower surface of honeycomb floor between frames 15 and 19. Additionally, remove foam from the lower caps of the lateral floor beams between frames 19 and 22. Inspect entire area for corrosion, fatigue cracks, security, and general condition. Inspect for segmented honeycomb floor support angles at the outboard edges for corrosion, fatigue cracks, fastener security, and general condition. Inspect lower cap/web area of lateral floor beams for fatigue cracks at fastener locations. Dye penetrant lower cap area for fatigue crack detection. Upon inspection completion and repair as required, clean and reprime. Replace foam and seal coat as required.			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
3. Underwing Keel Beam - Visually inspect removed assembly for corrosion, fatigue cracks, and general condition. Pay particular attention to end fittings common to beam assembly as well as those mating fittings forward of Frame 15 and aft of Frame 22. Magnaflux or replace attachment tension bolts upon reinstallation.			
4. Engine Mount (Engine and Mounts Removed) - This inspection to be accomplished at 12,000 flight hours or nearest earlier engine removal. Remove bolts, rod end, and yoke and Magnaflux for fatigue crack detection. Visually inspect forward mount location and exposed area of rear pylon beam for fatigue cracks, corrosion, fastener working, and general condition. Inspect and measure yoke fastener holes for proper size. (Refer to Engine Yoke Assembly Fastener Hole, Approved Repairs, Chapter 71.)			
5. Conduct a visual inspection of the tailcone structure for evidence of permanent deformation, corrosion, fatigue cracks, and general condition. From the 'hell hole' position, visually inspect the accessible areas of the internal structure (frames, stringers, etc.) and check for distortion, corrosion, fatigue cracks, and general condition.			
Remove tailcone access plates and use flashlight and mirror to inspect internal tailcone structure in area of lower fin spar attachment to canted fuselage frames. Check for attachment security, frame crippling, corrosion, and fatigue cracks...			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
C. **Flight Controls** (Movable surfaces are to be removed from parent structure and all bearings, bushings, and rollers checked for looseness, roughness, seizure, or wear.)			
1. **Flap (Removed From Wing)**			
Remove flap tracks and pushrod from flap assembly and Magnaflux for crack detection. Visually inspect flap support structure for security, corrosion, fatigue cracks, wear, evidence of interference, and general condition. Particularly inspect the flap sector and supporting bracketry for evidence of overload or fatigue cracks.			
Visually inspect the flap surface for permanent deformation, corrosion, cracks in skin, unusually heavy chafing and other wear or interference indication. With adequate lighting and 10X magnification, inspect the flap track attachment fittings/area for overload or fatigue crack indications. Also, inspect the nose roller support structure and the actuator pushrod attachment area for similar discrepancies. Dye penetrant inspect lugs of flap track attach fittings for fatigue cracks.			
2. **Aileron (Removed From Wing)**			
Clean and visually inspect aileron drive/actuation mechanism (yoke, clevis, etc.) using proper lighting and 10X magnification. Check for fatigue cracks, rust or corrosion, wear, or general condition. With yoke removed, inspect center hinge casting for corrosion, fatigue cracks, and general condition. (See Replacement Schedule for life limited parts.) Inspect other hinge locations for deformation, fatigue cracks, or general condition (includes wing and aileron hinge elements).			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
2. Aileron (Removed From Wing) (Cont'd.) Conduct a general visual inspection of the aileron assemblies for permanent deformation, corrosion, cracks in skin, wear or chafing, and general condition. Inspect the balance weight locations for attachment security. Inspect trim tab and balance tabs for general condition and security. Note particularly any hinge or push rod looseness that may contribute to excessive tab "free play".			
3. Rudder (Removed from Vertical Stabilizer) Clean hinge locations and visually inspect local structure using proper lighting and 10X magnification. Inspect hinge support structure for deformation, corrosion, and fatigue cracks. (Includes rudder and vertical stabilizer elements of hinge.) Inspect lower bellcrank, torque tube, and attachment to lower rib for deformation, rust or corrosion, or fatigue cracks. Remove access panels at balance weight location(s) and inspect balance weight installation(s) for security and general condition.			
Conduct a general visual inspection of the rudder assembly for permanent deformation, corrosion, fatigue cracks, wear or chafing, and general condition. Inspect trim tab installation, including balance weight, for security and general condition. Note particularly any hinge or push rod looseness that may contribute to excessive tab "free play".			
4. Elevator (Removed from Horizontal Stabilizer) Clean hinge locations and visually inspect local structure using proper lighting and 10X magnification. Inspect hinge support structure for deformation, corrosion, loose or working fasteners, and fatigue cracks (includes elevator and horizontal stabilizer elements of hinge). Inspect			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
bellcranks, attachment to torque tubes and attachment to inboard rib for deformation, rust or corrosion, fatigue cracks, and security of fasteners. Remove elevator tips and inspect horn balance weight installation for security of attachments and fatigue cracks in supporting structure.			
Conduct a general visual inspect of the elevator assemblies for permanent deformation (particularly between hinge locations), corrosion, fatigue cracks, wear or chafing, and general condition.			
Conduct an x-ray inspection of the elevator including spar caps, rib and rib flanges, and upper and lower skin from LBL 36 to RBL 36 per the procedure of Section 55-20-01 of the NDI Manual.			
5. Remove stabilizer actuator, disassemble, and visually inspect for wear, corrosion, fatigue cracks, and general condition. Magnaflux and dye check structural parts. Prior to reinstallation, comply with lubrication requirements defined by the Replacement and Overhaul Schedule. In order to accomplish this requirement, the performing facility must possess the required Repair Manuals and Special Test Equipment. (Refer to OVERHAUL SCHEDULE.)			
D. Empennage			
1. Horizontal Stabilizer (Attached to Vertical Fin)			
With alternating up and down loads applied to stabilizer tips, observe actuator and hinge pin fitting areas for evidence of wear, free play, and general security. Pay particular attention to the relative movement that may be present between the hinge pin and the horizontal stabilizer pivot fitting bearing/bushing installation.			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
2. Remove the horizontal stabilizer from the upper fin structure by removing the stabilizer hinge pin. (Refer to Chapter 27.) Inspect the stabilizer actuator as called out under Flight Controls. Clean and visually inspect the hinge pin for wear and corrosion (including the internal surface of the pin). Magnaflux pin for cracks. Apply a coat of zinc chromate primer to the internal surface of the pin prior to reinstallation.			
3. **Horizontal Stabilizer (Detached From Vertical Fin)** Conduct a general visual inspection of the stabilizer assembly including upper and lower skin splices at BL 4.5 rib, accessible portions of front and rear spar installations, elevator hinge support locations, upper actuator attachment structure, and gusset installation between L & R BL 4.5 rib installations just forward of pivot fitting cut-out. With lower surface access plates removed and using a flashlight and mirror, conduct an internal inspection of the BL 4.5 rib installations, paying particular attention to the rib caps and webs, adjacent spar caps and webs, and joggled stringer attachments. Inspect for general appearance, evidence of overload (stringer buckling internally and/or rivet tipping at BL 4.5 skin splice station externally), fatigue cracks, loose or working fasteners, and corrosion (particularly exposed areas of front and rear spar caps). Visually inspect pivot fitting installation using proper lighting and 10X magnification. Inspect for security, wear, corrosion, and fatigue cracks.			
Conduct x-ray inspection inspection of front and rear spar caps from BL 0.0 to L and R BL25. Also inspect rib installations at BL 19.4, BL 4.5, inner spar skin and center box structure. Refer to 55-10-01 of NDI Manual. Inspect for fatigue cracks, corrosion, and general fastener condition.....			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
Conduct eddy current inspection of upper and lower skin along the splices at BL 4.5 upper and lower, left and right. Also inspect upper and lower caps of front and rear spars from LBL 25 to RBL 25 adjacent to fasteners. On the rear spar, inspect vertical leg of spar cap adjacent to web attachment fasteners from BL 0.0 to BL 25. Inspect upper actuator fitting attachment structure from front to rear along upper and lower cap members adjacent to fastener locations. Refer to Part 3 of the NDI Manual for this fatigue crack inspection.			
4. Vertical Stabilizer (Attached to Fuselage). Conduct a general visual inspection of the vertical stabilizer above the fuselage for evidence of permanent deformation, corrosion, loose or working fasteners, fatigue cracks, and general condition. Remove all access panels, and using flashlight and mirror, inspect internal rib and spar structure for corrosion and fatigue cracks.			
Visually inspect upper fin structure, particularly in pivot fitting and lower stabilizer actuator attachment area. Use 10X magnification and proper lighting to aid visual inspection. Dye penetrant accessible areas of pivot fittings. Inspect for fastener security, general condition, wear, fatigue cracks, and corrosion of fittings and attaching structure. Conduct eddy current of the accessible areas of pivot fittings, particularly inside radii and the lug area. Also eddy current inspect pivot fitting attaching structure including forward and aft attachment plates adjacent to fastener locations. Refer to Part 3 of NDI Manual for eddy current procedures.			

12000-HOUR INSPECTION
(Accomplish at 6000-Hour Intervals Thereafter)

DESCRIPTION	MECH.	DATE	INSP.
Visually inspect the local structure around the Dorne-Margolin antenna installation for fatigue cracks and fastener security. Conduct an x-ray inspection of this area in accordance with the procedure defined by Section 55-30-01 of the NDI Manual. Inspect for corrosion and cracks.			

REPLACEMENT AND OVERHAUL SCHEDULE

1. GENERAL

A. This schedule is a list of equipment which should be either overhauled or replaced by serviceable components at the intervals indicated. Items not listed are considered "On Condition" items with unlimited service life and will only be repaired or replaced as necessary. All intervals are in hours unless otherwise indicated.

B. Vendor recommendations and service history dictates replacement items for these items.

C. *Items listed under Overhaul Items which are identified by a star require that the performing facility must possess the required Repair Manuals and Special Test Equipment before performing that requirement.

D. Refer to Chapter 4 for the replacement items dictated by FAA Approved Report 25-S47.

2. REPLACEMENT ITEMS

SYSTEM AND COMPONENT	INTERVAL
Propulsion	
All Engine Mounts. (LM-308 Top, Forward and Inboard)	Engine Overhaul
Flight Controls	
Flap Nose Roller Bushings	1,200
Spoiler Actuator Bolt, Nut and Cotter Pin (Applies only to 25-061, 25-070 thru 25-114 not modified per AMK 73-1.)	500
Rudder Control System Cables (See Note 6)	2,400
Wing Flap Sector Bolt which secures Flap Sector	7,200
Landing Gear (See note 8)	
Hydraulic Hoses for:	1,500
Nose Gear Actuator	
Main Gear Actuator Extend and Retract Ports	
Main Gear Door Actuator	
Main and Nose Gear Uplatch Actuator	
All hydraulic brake hoses located on the strut and in the wheel well area.	2,400
Pneumatic (Refer to Chapter 32)	
Emergency Air Hoses for Landing Gear Emergency Extension and Emergency Braking Systems	7,200
Fuel	
Fuel hoses in engine nacelle area	Engine Overhaul
All other fuel hoses in aircraft (pressure)	7,200

Fuselage	
36" Door Mechanism 3/16" Shaft Bolt thru 2311288 Rod Control Assy. (P/N 2311490-8 made from AN 3-21 bolt.) (For aircraft not modified per AMK 78-2, "Replacement of door Handle Mechanism for the 36-Inch Cabin door.").	3,000
24" Door Mechanism 1/4" Dia. Shaft Bolt thru 2511287 Quadrant (NAS 1154E-40P).	7,200
Hydraulic (See note 8)	
Hydraulic hoses in the engine nacelle area (including hoses attached to the hydraulic pump and terminating at the firewall)	Engine Overhaul
Hydraulic hoses, excluding those listed under Landing Gear (Replacement Items) and those in the engine nacelle area listed under Hydraulic (replacement Items).	7,200
Fire Extinguisher	
Cartridges (See note 5)	3 years.
Electrical	
R ESS BUS (40 amp) circuit breaker	7,200
L ESS BUS (40 amp) circuit breaker	7,200
MAIN BUS TIE (50 amp) circuit breaker	7,200
Oxygen	
Cylinder (See note 2)	5 Years ICC Hydrostatic Test
Pneumatic	
Emergency Air Bottle (Kidde) (See notes 3 and 4)	1 yr. visual inspection 3 yrs. ICC hydrostatic test. 15 years scrap.
Emergency Air Bottle (Tavco) (See notes 3 and 4)	3,6,9, & 12 yrs - Visual Hydrostatic Inspect 9 and 12 yrs. - X-ray 15 yrs. - Scrap
Fire Extinguisher	
Container (See note 2)	10 years ICC Hydrostatic Test (See note 7.)

3. OVERHAUL ITEMS

SYSTEM AND COMPONENT	INTERVAL
Propulsion	
Engines (including fuel control unit, oil tank, governor, and oil heat exchanger)	Refer to General Electric Service Bulletin (CJ610) 72-43
Flight Controls	
*Stabilizer Actuator - Overhaul per applicable Repair Manual	600
*Servos (Pitch, roll and yaw - when equipped with DC Torquer type servos) - Refer to J.E.T. Instruction Manual No. TP201 for inspection interval.	
*Servos (Pitch, roll and yaw - when equipped with clutch-type servos)	
1. Disassemble, clean, inspect, repair or replace worn parts, including clutch and motor brushes as required, relubricate, assemble, and test.	600
2. Replace bearings.	1,800
3. Inspect, replace, or repair commutator as required.	1,800
Landing Gear	
*Nose Wheel Steering Actuator (P/N 2380066)	
1. Disassemble, clean, inspect for corrosion, relubricate, assemble, and replace motor and clutch brushes as required.	600
2. Replace bearings.	1,800
3. Inspect, replace, or repair commutator as required.	1,800
Lear Avia Servos (P/N 800171)	On Condition
*Nose Wheel Steering Actuator (P/N 6608278) - Refer to J.E.T. Instruction Manual No. TP-267 for inspection interval.	

*In order to accomplish this requirement, the performing facility must possess the required Repair manuals and Special Test Equipment.

Notes:

1. Time count for Replacement, Overhaul or Testing of this item shall commence from the Airworthiness Certification Issue Date recorded in the original Log Book for that aircraft.
2. Time count for Replacement, Overhaul or Testing of this item shall commence from the manufacturing date stamped on the time.
3. Time count for inspecting, Replacement or Testing of this item shall commence from the orginal test date of the item.
4. Visual inspection of the emergency air bottle shall include both interior and exterior visual inspection. Refer to 12-00-00.
5. Cartridge replacement time interval shall begin at the time of installation in the aircraft. Check date stamped on cartridge. In no case shall a cartridge be installed if the date on the cartridge is older than two (2) years, eleven (11) months. Maximum life of the cartridge is (6) years. Therefore, with a maximum in-service life of three (3) years, the shelf (in stock) life may not exceed two (2) years, eleven (11) months from the date stamped on cartridge.
6. Replacement time applies to primary rudder control system only. Rudder (yaw) servo cables (primary & secondary) and aileron/rudder interconnect cables are replaced as required. (Refer to Chapter 27 for control cable damage limits.)
7. Kidde and HTL (American Standard) extinguisher containers may remain in service up to a maximum of ten years before ICC hydrostatic testing is required, provided the following criteria are met:
 a. Container pressure is within limits. Check gage pressure on container and compare with required pressure in Chapter 26.
 b. Inspect container for visible damage. If dents deeper than 1/16 inch per inch of dent diameter or scratches deeper than 0.004 inches are present, an ICC hydrostatic test is required.

 When recharging fire extinguisher containers which have been in service for less than 5 years since hydrostatic testing, the operator should specify whether or not the hydrostatic static test is to be performed.

 Hydrostatic tests are to be performed per requirements of DOT Specification 178.33, Specification 4D and 178.47 Specification 4DS. This test is mandatory after 10 years have lapsed from the original test date.

 All Charged containers in service after 10 years, must be retested on a five-year basis after the last retest period.

8. On Aircraft equipped with Teflon steel-braded hoses, these hoses are not life limited and shall be replaced as condition dictates.
9. This procedure may be performed by an Airframe licensed mechanic when the recommended procedure and equipment are used (Hocking Locator and Guide Block as called out in Chapter 32). Appropriate training and qualification is required for other equipment.

UNSCHEDULED MAINTENANCE CHECKS

1. **GENERAL**
 A. The following unscheduled maintenance checks cover abnormal aircraft operation and include hard or overweight landing, severe turbulence and/or maneuvers, engine change, and sod runway landing operation.
 B. A hard landing is defined as any landing which is believed to have been made at an excessive sink rate. An overweight landing is closely related to a hard landing and is defined as landing the aircraft at a gross weight exceeding placard landing weights.
 C. Severe turbulence is defined as violent buffeting of the aircraft due to atmospheric conditions. Severe maneuvers is defined as maneuvers which exceed limits prescribed in the Flight Manual.
 D. Sod landing.
 E. The following inspections must be performed to determine and evaluate the extent of damage in local areas and to structure adjacent to that area.

HARD OR OVERWEIGHT LANDING (Weight in excess of maximum landing weight)

A. After every hard landing or overweight landing, inspect the following areas:
 1. Lower wing skin in landing gear rib area for skin buckles, security of landing gear rib and trunnion fittings.
 2. Wing-to-body fittings and supporting structure for security, fastener condition, and permanent deformation.
 3. Trailing edge region of wing for local deformation affecting normal usage of flaps and ailerons.
 4. Tip tank-to-wing attachment for security, fastener condition, and evidence of excessive load such as failures and/or permanent deformation. It is not necessary to remove splice plates unless excessive fastener load or working is evident.
 5. Keel beam and attachments for security, fastener condition, permanent deformation, and torque of primary tension joint bolts.
 6. Nose and main landing gear assemblies, and nose and main gear actuator assemblies for damage or deformation. Actuator attach points and support structure for security, fastener condition, and permanent deformation.
 7. Engine mount/pylon beam structure for security, fastener condition, firewall web wrinkles or other permanent deformation.
 8. Remove main gear wheels and perform Eddy current inspection of wheel bead seat radius, in accordance with procedures outlined in Chapter 32 (refer to 32-40-00, Inspection/Check). Replace nose and main gear tires.

B. If excessive landing gear forces are indicated by the above noted inspection or if unusual load conditions have occurred such as landing short, going off runway, or engagement of some obstacle on the runway, conduct the following inspections:
 1. Depressurize struts and stroke throught full travel range and note any indication of cylinder wall deformation that impedes full stroke travel.
 2. Disassemble and inspect detail parts of gears and actuators for overload failures. Conduct visual inspections with magnification, Magnaflux, dye penetrant, 'zyglo', or other types of inspections to determine integrity of components.
 3. Conduct a thorough visual inspection of gear trunnion fitting and actuator attachment fitting areas for security, sheared fasteners, ovalizing of holes, back-up structure integrity, or other indication of overload. At trunnion fitting locations, conduct an eddy current inspection of basic forging installation, particularly the inside radii areas. Refer to Part 3 of the NDI Manual.

SEVERE TURBULENCE AND/OR MANEUVERS

A. After flight involving severe turbulence and/or maneuvers, conduct the following inspections:
 1. Wing-to-body fittings and supporting structure for security, fastener condition, and permanent deformation.
 2. Trailing edge region of wing for local deformation affecting normal usage of flap and aileron.

3. Tip tank-to-wing attachment for security, fastener condition, and permanent deformation.
4. Keel beam and attachments for security, fastener condition, permanent deformation, and torque of primary tension joint bolts.
5. Canted bulkheads and lower fin spar attachments in aft tailcone. Check for fastener security, permanent deformation of bulkheads and spar assemblies.
6. Horizontal stabilizer hinge fittings, actuator and fittings, and stabilizer center section structure for security, permanent deformation, or other evidence of overload.
7. Vertical stabilizer for permanent deformation, skin buckles, and security at primary attachments.
8. Engine mount/pylon beam structure for security, fastener condition, firewall web wrinkles, or other permanent deformation.

ENGINE CHANGE

A. At every engine change, inspect the following components:
 1. Engine yoke for corrosion and cracks at lightening holes, fastener holes, engine mount attachments, and welds.
 2. Pylon beams for cracks at fastener holes, engine mount fittings, and beam-to-fuselage fittings.
 3. Engine mounts for deformation and general condition. Refer to Chapter 71.
 4. Inspect and measure yoke fastener holes for proper size. (Refer to Engine Yoke Assembly Fastener Hole Approved Repairs, Chapter 71.)

REJECTED TAKEOFF

A. If an aircraft should experience a rejected takeoff or a landing stop such that maximum effort braking was used and aircraft weight is above that of the maximum brake energy for landing (See AFM Landing Weight Limits Charts), the following must be accomplished:
 (1) Wheels and fuse plugs must be inspected for condition.
 (2) Remove brakes, disassemble, and inspect for condition and excessive wear. (Refer to Chapter 32.)
 (3) Remove and scrap tires.

OVERSPEED RECOVERY - LANDING GEAR (Landing Gear Extension at High Speed)

A. Inspect main gear inboard and outboard doors.
 1. Check doors and door hinges for any signs of deformation, cracks, fastener condition, and freedom of movement.
 2. Check inboard door actuator attach points for deformation, cracks, security of attachment, and freedom of movement.
 3. Check brake and hydraulic lines for condition and security of attachment. Check both the wheel well and strut area.
 4. Check electrical wiring for condition and security of attachment. Check both the wheel well and strut areas.

B. Inspect nose gear doors.
 1. Check doors and door hinges for any signs of deformation, cracks, fastner condition, and freedom of movement.
 2. Check door linkage for any signs of deformation, security of attachment, and freedom of movement.

C. Inspect lower wing and fuselage for signs of damage.

SOD RUNWAY LANDINGS (Aircraft Approved for Unpaved Runway Operations)

A. After every 25 sod runway landings, perform the following inspections:
 1. Inspect lower end of main landing gear cylinders for security of retainer ring, ring lock, and lockscrew.
 2. Inspect lower end of main landing gear cylinders for cracks and deformation.

B. After every 150 sod runway landings, perform the following inspections:
 1. Remove main landing gear retainer ring lockscrew and install new lockscrew.
 2. Inspect lower end of main landing gear cylinder for cracks and deformation.
 3. Inspect retainer ring for evidence of rolling deformation.

C. After every 900 sod runway landings, perform the following inspection:
 1. Remove and disassemble main landing gear struts. Conduct a zyglo or dye penetrant inspection of the lower portion of the cylinder at the retainer ring location. Inspect for cracks and permanent deformation.

D. After every 1800 sod runway landings, perform the following:
 1. Remove main landing gear struts and actuators and install new strut and actuator assemblies.

BATTERY OVERHEAT

A. If at any time during flight or ground operation, including engine start, either overheat warning light (BAT 140, red or BAT 160, red) illuminate, the batteries must be removed from the aircraft and discharge-recharge reconditioning cycle must be performed. (Refer to Chapters 24 and 12.)